Corporate Governance: the relationship between Board of Directors and Firm Performance.

Empirical evidence of Italian listed companies

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Abstract

Corporate governance is an international topic which is studied in depth in several research fields, such as accounting, management, finance, economics, etc. The 20th century witnessed massive growth in corporate governance issues in terms of theories, practices and empirical research. Thus, corporate governance, including the board of directors, has become one of the central issues in the running of company, due to worldwide and rapid change in environmental conditions and the current economic, financial and social context which is changeable, dynamic and globalized. Indeed, the board of directors of a firm, i.e. the governing body of every corporate entity, is ultimately accountable for company decisions and its performance. The board of directors, which is a fundamental asset of the firm and one of the pillars of corporate governance, is responsible to owners, members, and other legitimate stakeholders in terms of decisions, strategies and firm performance.

This research analyses the effect of some corporate governance variables on performance by extending such variables and performance measures of previous studies. Thus, the object of the present research is corporate governance, and in particular the board of directors, its mechanisms and processes related with firm performance. The purpose of this research is to measure and quantify the relationship between the board of directors and performance of Italian firm listed on STAR segment (Italian Stock Exchange). Most studies in corporate governance analyse this relationship, but the majority are concerned with Anglo-American countries, emerging and developing markets and some European countries. Italy seems to have been left out of this research although it is an interesting case. Indeed, Italian corporate governance model presents some features in common with two archetypes existing in literature, i.e. Anglo-Saxon and German-Japanese models. However, the Italian model has some distinctive characteristics which are different from the two main corporate governance models.

In particular, little research has been conducted in Italy to measure the relationship between board of directors mechanism and performance in listed companies by using single variables tested in an econometric model. This research is thus explanatory and has adopted positive methodology; its aim is to better understand whether agency theory which is the predominant approach in literature, is confirmed in the Italian context. We adopt agency theoretical approach of corporate governance by focusing on the relationship between board mechanism and corporate performance. The board mechanisms we study are consistent with prior research, namely board size, board composition (i.e. independent, non-executive, executive directors), CEO duality, Audit
committee and Big Four\textsuperscript{1}. There is no relevant research which focuses on the relation Big Four-firm performance. On the other hand, firm performance is measured by Tobin’s Q (market value) and ROE (accounting measure); moreover a set of control variables are introduced.

Testing our econometric model on a population of Italian firms listed on STAR Segment (Italian Stock Exchange), we find some interesting results. In short, not all our empirical hypotheses are verified, for example we do not find that an increase of independent and non-executives directors leads to an improvement on firm performance, as agency theory states. Furthermore, CEO duality is not the worst leadership that a firm might adopt as agency approach maintains.

It follows that agency theory is probably not able to explain the complexity of the relationship between the board of directors and firm performance. This means that there is oversimplified vision of the company related to complexity of the environment in which the firm operates and to intricate mechanisms including procedures within the firm (Daily \textit{et al.}, 2003b). Agency theory provides unduly simplistic assumptions which do not reflect the real environment, leading to a failure of empirical findings to support its basic principles (Daily \textit{et al.}, 2003b).

Finally, given the complexity of board mechanisms, empirical results which do not support agency assumptions and the increased variety of interests, it follows that our findings may be interpreted through a relatively new theoretical lens, i.e. \textit{multiple agency theory} (Arthurs \textit{et al.}, 2008). The latter seeks to go beyond the simplistic assumptions of agency theory, to dismantle fortress of that overwhelming approach and to open the black box of the board processes (Daily \textit{et al.}, 2003).

\textsuperscript{1} Big Four are the largest international audit firms; in particular they are Deloitte, PriceWaterHouseCooper, Ernst&Young, and KPMG.
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Introduction

The purpose of this chapter is to present the background, the purpose, the objective and the structure of the thesis.

This research is set within corporate governance field and considers the board of directors as a central element of corporate governance mechanism and structure. Its efficiency and performance can determine success in the monitoring of firms and determine successful firm operation (Aluchna, 2010). Indeed, for a company to be successful it must be well-governed. An effective and well-functioning board of directors could have a significant impact on firm performance (Demb and Neubauer, 1992). We have conducted empirical research, using our empirical model, to measure the relationship between the board of directors and performance of Italian companies listed in STAR segment (Italian Stock Exchange).

While the importance of this relationship has been acknowledged in international corporate governance literature, it has been neglected in the Italian context.

This chapter is structured as follows. In section 1.1 the common ground on which the research is conducted is illustrated. The purpose of this presentation is two-fold. First, it is necessary to introduce the different views of corporate governance; secondly we present the board of directors as a fundamental corporate governance mechanism, since the board is the focus of this research. In the section 1.2, we describe the purpose of this study. Section 1.3 shows the methodological assumption of the research. Section 1.4 identifies its limitation and Section 1.5 depicts thesis structure.

1.1 Identifying the common ground

1.1.1 Development of corporate governance

The corporate governance issue has been an integral part of research since Adam Smith’s (1776) seminal study An Inquiry into the Nature and Causes of the Wealth of Nations and since the Berle and Means’ (1932) publication about the separation of corporate ownership from control. The latter seeks to explain why a company with dispersed shareholders (i.e. Public Company) gives control powers to managers who do not usually hold shares in that firm. Later Jensen and Meckling (1976) set up the positivist agency theory which still today dominates research in corporate governance field.
Furthermore, corporate governance research is closely connected with the economic development of industrial capitalism where different structures of firms are designed and implemented to «pursue new economic opportunities or resolve economic problems» (Clarke, 2004: 2). The development of corporate governance has also been fostered by a period of managerial hegemony (in the 1970s and 1980s) where corporate governance was defined from a managerial perspective, considering the board as “rubber stamps” for management. Those periods were characterized by abuse of power, corporate take-overs which led to an increase in companies’ expenditure, since managers paid themselves high salaries. It follows that within this turbulent context regulatory intervention was introduced to reduce the rubber-stamp role of the board. Indeed, the latter was to become more involved in business activities as the main purpose of the board was to create wealth for shareholders through the value creation in the firm. It became necessary to set objectives for firms and restrict or re-define the role of the board for a better monitoring of managers’ behaviour. It was necessary to align shareholders’ and managers’ goals in order to increase value creation for the former. This came as response to increased globalization experienced during 1980s. During those years, a great deal of attention (perhaps too much) was paid to short term increase in share value to satisfy institutional shareholders. Since the 2000s several financial scandals have occurred, the most serious example was the bankruptcy of Enron. What became clear from this series of dramatic events was the importance of recognising commitment to stakeholders, e.g. employees, suppliers, customers, etc. Basically, these stakeholders suffered huge losses due to managers’ opportunist behaviour. This recognition has led to a broader approach or perspective of corporate governance, not only focused on satisfying the interests of shareholders, but with an awareness that corporate has responsibilities towards society at large (Huse, 2007).

1.1.2 The board as a mechanism of corporate governance

The board of directors is considered the most important and powerful mechanism of corporate governance as it is the link between whose who provide capital (i.e. shareholders or owners) and the users of that capital to create value (i.e. managers) (Hermanson and Rittenberg, 2003). However, the founding risk is that the board and its members be considered as «pawns» (Lorsch and Maclver, 1989) where board importance is limited to an observance of legal regulations and board members may be viewed as the ornament of the corporate Christmas tree (Mace, 1971).

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2 A detailed description of the board of directors is provided in chapter 3.
After financial scandals and globalization, the importance of the board of directors increased due to its fundamental oversight role (Leblanc and Gillies, 2005; Minichilli et al., 2007). Indeed, boards are increasingly considered as a fundamental and essential asset for companies with the potential to contribute to sustainable competitive advantage (Huse, 2005; Minichilli et al., 2007). The board is expected to play an active role in the strategic process of firms, including defining company purposes (Monks and Minow, 2004; Garratt, 2007a). It follows that the board’s role is very complex; indeed it has to face several tensions arising from the interaction of different actors; the executives who work towards the implementation of their policies, non-executives who are there to monitor insiders, and the chairman acting as the arbiter of disputes and centre of internal tensions. Thus, the increasing demand of control and monitoring has led to fostering and strengthening of board structure and processes. Furthermore, codes of best practices recommend the setting up of separate committees dedicated to risk management, internal audit, etc.

For these reasons, we expect to see greater involvement of the board in proving leadership and control in order to increase firm performance.

1.1.3 What is corporate governance?

It is not simple to answer this question, probably because one single definition does not exist; the notion of corporate governance can depend on the context studied, together with theory, approach, and perspectives adopted. Sociological, financial, managerial and, organizational factors also come into play. The risk is to define in a simplistic way a complex and dynamic issue\(^3\). Thus, each definition provided by scholars reflects their methodological assumptions, their theoretical framework and their institutional context. In general terms, a combined definition of corporate governance is provided by both The Cadbury Report (1992) and OECD Principles of Corporate Governance (2004), «corporate governance is the system by which companies are directed and controlled» and it «involves a set of relationships between a company’s management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined».

\(^3\) We discuss corporate governance definitions in chapter 2.
1.1.4 The objective of corporate governance

The objective of corporate governance could be two-fold, i.e. theoretical and practical.

As regarding theoretical point of view, the objective of corporate governance varies according to the theory adopted. Huse (2007) gives four definitions of corporate governance which provide different objectives. First, agency and stewardship theories deem that the main governance objective is to enhance shareholders’ value. Second, stakeholder theory reckons that corporate governance purpose is to foster the value creation for stakeholders. Third, based on managerial hegemony, the objective may be regarded as “doing what is the best for management”. Fourth, according to resource dependence theory, the main corporate governance objective is to do what is best for the company. Theories do not, in fact, identify corporate governance objectives but the latter are inferred from the different board tasks which change on the basis of the theory adopted.

As far as practical point of view is concerned, laws, regulations and codes of best practice provide the objective of corporate governance. Different hard laws (i.e. State regulations) and soft laws (i.e. codes of best practices) draw up different definitions and the objective of corporate governance. According to Spira and Page (2003), an approach which goes beyond single countries is sensible, as many codes have been initiated and developed by private organizations. It follows that there is a founded risk that each code may provide different perspectives regarding corporate governance objective. OECD outlines the concept of objective. Given that 30 countries belong to OECD, including UK, USA, Norway, and Italy, we may assume that its description could be representative in a global context. The objective as identified by the OECD is: «Good corporate governance should provide proper incentives for the board and management to pursue objectives that are in the interests of the company and its shareholders and should facilitate effective monitoring. The presence of an effective corporate governance system, within an individual company and across an economy as a whole, helps to provide a degree of confidence that is necessary for the proper functioning of a market economy. As a result, the cost of capital is lower and firms are encouraged to use resources more efficiently, thereby underpinning growth» (OECD Principles of Corporate Governance, 2004: 11). It appears reasonable to assume that the principal objective of corporate governance may be economic growth of companies. Economic growth is reached by lower cost of capital and efficient use of resources by the board of directors, and all subjects within the firm. Economic growth may be ensured if the board and management pursue objectives which are aligned with those of shareholders and the company.
Finally, in this study we believe that the objective of corporate governance is to create value for shareholders by improving board of directors mechanisms and control processes. It follows that by fostering shareholders’ wealth, improving boards mechanisms, given the rise of investment funds, and financial globalization, good governance may be created. Good governance has positive effects both within the firm (i.e. leading to an improvement of corporate performance) and for economic growth. Thus, it is essential to understand all the mechanisms involved in the processes and procedures related to corporate governance, given that all subjects (i.e. shareholders, boards, managers, society, communities, etc.) could benefit from better firm performance.

1.1.5 Summary and implication for this research

Corporate governance is an international topic studied in depth in several research fields, such as accounting, management, finance, economics, etc. The 20th century witnessed massive growth in corporate governance issues in terms of theories, practices and empirical research. The board of directors is identified as a fundamental governance mechanism, and is increasingly recognized as one of the essential assets for a firm. Furthermore, the objective of corporate governance may be indentified from both theoretical and practical perspective. The former varies mainly on the basis of the theoretical framework adopted; the latter is closely related with hard and soft laws. However, if we consider the definition given by OECD, the overall objective of corporate governance is economic growth, thus firm performance. This research seeks to investigate how main corporate governance mechanism (i.e. the board of director) could influence firm performance and its economic growth. Indeed, the board is an important mechanism in the system of corporate governance and it can probably contribute to the overall purpose of corporate governance.

After having described the framework in which the research was carried out, it is now possible to identify the purpose of the study.

1.2 Purpose of the study

1.2.1 Introduction

Popper (2002) and Booth and Williams (2003) state that a thesis should be built around a central problem which we seek to solve. Although we are not always able to solve
problems we may contribute to a better understanding of the problem, and thus contribute to the search for solutions.

The object of the present research is corporate governance, and in particular the board of directors and its mechanisms and processes related with firm performance. The purpose of this research is to measure and quantify the relationship between the board of directors and performance of Italian firm listed on STAR segment (Italian Stock Exchange). Most studies in corporate governance analyse this relationship, but the majority are concerned with Anglo-American countries, emerging and developing markets, together with some European countries; Italy seems to have been left out from this research, although it represents an interesting case.

Before presenting research questions, it may be useful to outline some perspectives on what kind of relation may exist between boards and performance, and its relevance in corporate governance context.

1.2.2 Measuring the relationship between Board of Directors and Firm performance

The seminal research of Jensen and Meckling (1976) caused a huge increase in corporate governance studies, although these were mostly limited to US listed companies, characterized by dispersed ownership. However, since the 1990s corporate governance research has been conducted in other countries, such as UK, Germany, Japan, and Australia. Currently research in those countries is continuing, while there has been a snowballing of studies in emerging and developing economies, such as China, Brazil and other Asian and Eastern countries. Furthermore, national comparative research has also been carried out thanks to pioneering research by La Porta et al. (1997 and 1998). However, it appears that that Italian firms do not seem to have been studied in depth in terms of boards of directors and corporate performance.

In addition, despite widespread belief in the importance of corporate governance mechanisms for solving agency problems, empirical literature looking at the effect of individual governance mechanisms (e.g. the board, the audit committee) has not been able to find consistent positive effects. According to literature, board attributes such as size, composition, diversity, multiple directorship influence performance. On the one hand, theories determine the sign (positive, negative or null) of that relationship; on the other hand findings from empirical research either endorse or refute theoretical

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4 We show differences among Anglo-Saxon, German-Japanese and Italian models in chapter 2.
assumptions. It emerges that within one theory not all findings confirm the assumptions of the said theory; this happens when a theory is applied outside the context in which it was developed. For instance, agency theory was born in US context. According to empirical literature agency theory assumptions are not confirmed in environments different from the USA. It is worth pointing out that a great deal of theoretical and empirical research has suggested board characteristics are endogenously determined and that the latter vary with firm feature (Kole and Lehn 1999; Mak and Rousch 2000; Adams 2005).

Moreover, there is little empirical research focusing on Italian firms with respect to the analysis of single variables tested within econometrical models. However, it is worth pointing out that some Italian research has been conducted with reference to governance indices which combine multiple governance dimensions into one number. Research regarding governance indices within Italian context appears to be more than the analysis of single variable tested within econometric model. This may be due to the simplicity of having one summery number for capturing the multifaceted issue of corporate governance.

However, as Bhagat et al. (2010) stated, the conclusion to draw from this extensive research cannot be that these empirical studies have been a waste of time and effort. Rather, that there are limitations to those studies and that more work must be done to understand more fully the effect on performance of the board of directors mechanisms. It follows that the enigmatic relationship between board and firm performance may increasingly become less obscure, although a great deal of research may have to be done to fully understand the issue.

1.3 Research approach, Methodology and Research Questions

1.3.1 Research approach and Methodology

As previously indicated, little research has been conducted in Italy to measure the relationship between board of directors mechanism and performance in listed companies by using single variables tested in a econometric model. This research is thus explanatory and has adopted positive methodology; its aim is to better understand whether agency theory which is the predominant approach in literature is confirmed in the Italian context.

In this research, a deductive approach has been adopted within the existing theory of corporate governance (i.e. agency theory) to gain better knowledge about the effect of
the board mechanism on firm performance. In particular, we adopt *agency theoretical approach* of corporate governance, by focusing on the relationship between the boards mechanism and corporate performance. The board mechanisms we studied are consistent with prior research, namely board size, board composition (i.e. independent, non-executive, executive directors), CEO duality, Audit committee and Big Four. There is no relevant research focusing on the relations Big Four-firm performance. On the other hand, firm performance is measured by Tobin’s Q (market value) and ROE (accounting measure).

This research is *quantitative*. We collected data for all firms listed on STAR segment (Italian Stock Exchange) over the period 2005-2007, we deliberately take into account the years preceding the recession so that our data is not influenced by its effects. Moreover, we study firms listed on STAR segment because they are the best Italian listed companies in terms of corporate governance. Indeed, according to Italian Stock Exchange rules a firm can request listing in that segment only if it respects some strict criteria, namely it must provide excellence in terms of transparency and communication, liquidity and corporate governance.

### 1.3.2 Research Questions

The first research question put forward is to understand how in Italy the board of directors, considered a fundamental asset for company, may influence firm performance. This can be expressed as follows:

\[ RQ 1) \text{ How can Board of Directors affect firm performance in Italian listed companies?} \]

Furthermore, international literature stresses the importance of monitoring processes within company, namely the board itself, independent directors, audit committee and external auditors (e.g. Big Four). Thus, the second research question can be expressed as follows:

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5 Big Four are the largest international audit firms; they are represented by Deloitte, PriceWaterHouseCooper, Ernst&Young, and KPMG.
RQ 2) How can monitoring processes affect firm performance in Italian listed companies?

1.3.3 Potential contributions

The starting point in all studies is to focus on the fact that the ultimate goal is to «add something of value to the body of accumulated knowledge and in this case accumulated business and management knowledge» (Remenyi et al., 1998: 24). Furthermore, potential contribution of research can be explained in terms of both academic and practical contribution (Jonsson, 2007). The former is made if research extends our ability to understand phenomena (Remenyi et al., 1998). In academic perspective, the present research will contribute to a better understanding of board mechanisms effecting firm performance based on agency theory in the Italian context.

From a practical point of view, this study can contribute to fostering an understanding and awareness of board mechanisms impacting on corporate performance and thus increase their contribution towards enhancing corporate governance. The present study can also contribute to developing empirical research in the Italian context by using single variables tested in an econometric model. Indeed, most extant research in Italian firms focuses mainly on corporate governance indices, i.e. combining multiple governance dimensions into one number.

1.4 Limitation of the Research

With regards to the relation between governance and firm performance, Bohren and Odegaard (2004) identify four main problems with governance research which are consistent with our study: first, the use of partial approach due to limited availability of data (Demsetz and Lehn (1985), Mork et al. (1988), McConnell and Servaes (1990) and the present research); second, context specificity whereby most extant studies have been on US public company that cannot be reproduced in other countries with different law origins; third, the lack of rich quality data (in terms of variable measures and number of years) that could make conclusions distorted; last but not least, aspects regarding endogeneity and reverse causality.

One limitation of our study is the time period under investigation. Italy has witnessed many changes in corporate governance structure and mechanism over the last few years. Indeed, it would have been interesting if we had considered a longer time span in order
to explore other insights regarding the relationship between board and performance. However, we reckon that as a first study, a period of three years is sufficient to understand relations, insights and mechanisms existing within the board.

We should point out that we have analysed a particular set of variables to measure the relationship between corporate governance structure and firm performance. However, our study does not consider other variables that may be important drivers of corporate governance structure. With regards to audit committee, we could have considered the level of independence of the members, their expertise, the number of meeting per year, as well as its presence within the company. With respect to ownership, it could have been interesting to consider ownership percentage; this however, was not possible because of lack of information. Other interesting indicators could have been those relating to demographic similarity variables regarding the board of directors, such as functional background, education and age (Zajac and Westphal, 1995).

Moreover, our analysis does not consider empirical international comparison by virtue of convergence process which is underway. However, given the differences among countries in terms of institutional environment (Shleifer and Vishny, 1997), political and socio-cultural factors (DiMaggio and Powell, 1983, 1991; North 1990, 1992), countries have reported different effects of corporate governance on firm value and performance (Pagano and Volpin, 2001; Klapper and Love, 2004). Even within the same country, several conflicting effects have been found.

Despite these limitations, it appears reasonable to assume that this research may contribute to increased knowledge regarding corporate governance issues, in particular regarding board of directors within the Italian context; a context which has up to now received little attention.

1.5 Thesis structure

The thesis is divided into 6 chapters. **In chapter 1** the common ground, on which the present research is conducted, is described. After a short presentation of corporate governance features we present the problem of description which will be explored and developed. **In chapter 2** the general framework of corporate governance within which this research was conducted is presented. In particular, we compare the different corporate governance definitions in order to understand the *humus* from which models and theories are developed. Then, after comparing corporate governance Italian and International models, and focusing on international theories of corporate governance,
we seek to clarify the relationship between Italian and International models and corporate governance theories.

**In chapter 3** board of directors features are presented. After discussing corporate governance in general terms we focus the research analysis on the board of directors under different perspectives, i.e. American, English, German, Japanese, and Italian codes of corporate governance, international theory of corporate governance, empirical research. Finally, we seek to understand if convergence or divergence towards Anglo-Saxon models and practice is underway.

**In chapter 4** the methodology applied in this research is presented and discussed. In particular, this chapter identifies philosophical assumptions, research process and phases used in the research. We also justify and give evidence for the choices of methodological assumption made.

**In chapter 5** different ways to measure the relationship between corporate governance and firm performance, i.e. indices and single variables within econometric models are presented. Research hypotheses based on literature review are shown. We then build our empirical model to test on Italian listed companies in order to measure the relation between board of directors mechanisms and firm performance. Moreover, results are presented and discussed.

**In chapter 6** a summary of the whole research complete paper is presented; furthermore we propose another theory to interpret results and understand Italian companies corporate governance, i.e. *multiple agency theory*, instead of the simple *agency theory*.  


CHAPTER 2 - Corporate Governance. Definitions, Models and Theories

Contents: 2.1 Introduction; 2.2 Comparison of corporate governance definitions, 2.2.1 Different interpretive logicalities of corporate governance, 2.2.2 Corporate Governance Approaches, 2.2.2.1 The restrictive approach, structure and process, 2.2.2.2 The extensive approach, structure and process; 2.3 Comparison between International and National Corporate Governance Models; 2.4 International Theories of Corporate Governance, 2.4.1 Agency Theory, 2.4.2 Stakeholder Theory, 2.4.3 Stewardship Theory, 2.4.4 Resource Dependence Theory; 2.5 Models and Theories of Corporate Governance, 2.5.1 Anglo-Saxon, German-Japanese models and International Theories, 2.5.2 Italian model and International Theories; 2.6 Summary, Conclusions and Research Implications, 2.6.1 Summary, 2.6.2 Conclusions and Research Implications.
2.1 Introduction

In recent years we are facing a worldwide and fast change in the environmental conditions where companies operate. The firm is not to be analysed as a unit isolated from the environment because it rises and grows within it (Poddighe, 2001). So the element to be considered with utmost care is given by turbulence and mutability of environment that, especially today, distinguishes all companies. In this ever-changing and turbulent scenario, firms have always tried to understand what are phenomena and reasons that cause this dynamism and environmental variability, in order to achieve, and enhance economic growth of company (Madonna et al., 2014). The relevance of corporate governance issues come out vigorously in that dynamic and changing contest in which it is fundamental to establish the government rules, hence governance. It is noteworthy that the noun governance comes from Latin verb “gubernare” that means “to hold the rudder” or “steering”; so it highlights that role and responsibility of top management (e.g. Board of Directors) is fundamental for company (Aguilera and Cuervo-Cazurra, 2009). Corporate governance has become a topic which has been raised in popular consciousness in recent years (Aras and Crowther, 2010).

Company, influenced by the environmental changes, should be considered also as a set of relationships and the dynamics that exist between different stakeholders (Freeman, 2010). Companies, in fact, should adopt a governance model that looks for more rational business (Deidda Gagliardo, 2013), considering all relations affecting stakeholder and firm. The company’s ability to fulfill expectations of all those who have interest in firms (i.e. shareholders and stakeholders) should be translated in the achievement of economic equilibrium (Giannessi, 1979) over time which is company main purpose. Economic equilibrium refers to the ability to remunerate adequately assets; it means earnings must “pay” or cover the input costs and the cost of capital (Giannessi, 1979).

It follows that a lack of effective governance could damage stakeholders interests, compromise the economic equilibrium goal and thus prevent the achievement of positive performance. Therefore, it is evident that the relationship between corporate governance and economic performance. Before explaining the connection between corporate governance and economic performance, it is necessary to focus on the study of the corporate governance and more precisely on the theoretical models.

Models are the result of the presence of different powers and interests in the corporate which have to take into account economic and social forces and different legal and

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6 It should be noted that the term corporate is also Latin etymology: it derives from “corpus” that means body, hence company, firm.
economic traditions. It becomes very important to analyse these models to understand how companies operate and to consequently be able to find out those internal and external elements that influence performance.

This chapter focuses on corporate governance definitions, and then we compare the two main corporate governance models, i.e. the Anglo-Saxon, German-Japanese models, with the Italian case which is considered as hybrid, uncommon model. After explaining the different corporate governance theories, the attention is focused on the relation between the Anglo-Saxon, German-Japanese models and international theories of corporate governance, fully studied and clarified in literature. However, the relationship between the Italian model and international theories of governance is not so clear and evident in literature. Thus, this chapter aims to clarify what corporate governance theories are referring to the Italian model. It is a necessary to identify what are perspectives and the corporate governance theories that better explain Italian companies and, only after that, it is possible to identify research hypotheses.

This chapter is structured as follows. In the section 2.2 we compare different corporate governance definitions in order to understand the *humus* from which models and theories are developed. In section 2.3, we compare corporate governance Italian and International models through a comparative conceptual map developed through main contributions in this field. In section 2.4, we focus on International theories of corporate governance, i.e. agency, stakeholders, stewardship and resource dependence theories. In section 2.5, we seek to clarify the relationship between Italian and International models and corporate governance theories. In section 2.6 we sum up our results and depict research implications.

### 2.2 Comparison of corporate governance definitions

Contributions of international literature on corporate governance are particularly numerous, but a unique and shared corporate governance definition has not been achieved, yet. Ahrens *et al.* (2011) believe, in fact, that - despite high contributions and numerous research – researchers still know too little about corporate governance. Indeed, different studies and conceptualizations of corporate governance depending on the approach adopted may exist. One of the reasons could be the specificity of each firm that does not allow a generalization valid for all companies.
It is widely believed that «corporate governance is old, only the phrase is new» (Tricker, 2000: 4). The term "corporate governance" is newly-minted but indeed this topic has always been debated. In fact, scholars have always tried to define conditions of effectiveness and efficiency within the company, leadership and management mechanisms in order to foster economic growth. In some countries (including the United Kingdom, United States of America), the debate on corporate governance began in the first half of 900; while in others (including Italy) contributions initially focused not on corporate governance but on principles of business administration. For instance, Berle and Means (1932) publish a seminal work about the separation between ownership and control in the United States; furthermore one of the earliest codes of best practice is the Combined Code enforced in Britain since 1945. It is interesting to note that regarding the first user of the term "governance", the English writer and poet, Geoffrey Chaucer (1300), made reference to the term "governance". Geoffrey Chaucer’s famous work is "The Canterbury Tales" where he wrote, «[...] to han gouernance of the hous and lond. [...] In him is bountee, wisdom, gouernance». He used the word "gouernance" to indicate the current lemma “governance”.

The issue of corporate governance, therefore, is likely to be an eclectic, versatile, multifaceted topic, inter alia, defined as a “myth”. As Rossi (2001:8) states corporate governance is a myth ‘because myths have mysterious and unpredictable suggestion that stimulates speculation and vitalize the research. In this sense, the myth of corporate governance therefore foresees that its rules might affect ownership structure’. The failure of international business giants is also caused by a poorly effective, efficient, transparent and accountable governance highlighting - among others - the issue of control mechanisms and "checks and balances" weakness. All stakeholders are interested in corporate governance patterns, its purposes, the balanced functioning of the bodies responsible for firm management. Given the complexity and vastness of the subject, and the aim of better understand corporate governance, different interpretations are identified. In other words, definitions of corporate governance are numerous and their systematization is able to capture different peculiarities about corporate governance issues.

Conventionally, it is believed that the term corporate governance has been coined ‘in the seventies in countries like the UK and the U.S. from legal science in relation to the full affirmation of the modern financial capitalism, which emerged in the late nineteenth century with the emergence of large corporate firms in a capitalist basis (corporation) qualified by "anonymity", profit-making legal personality and limited liability equity of shareholders’ (Proietti, 2007).
2.2.1 Different interpretive logicalities of corporate governance

Corporate governance interpretive logicalities proposed by literature are different. The shared element is to identify mechanisms within firm and features underlying corporate governance. In particular, it is possible to distinguish different interpretive logicalities: A) the structural-functional, B) the dimensional, C) the temporal, D) the accountability, E) the multidisciplinary and F) others.

A) The structural-functional logicality combines the study of corporate governance according to a structural perspective (i.e. understanding bodies necessary to govern a company) and functional perspective (i.e. understood which are all mechanisms and procedures necessary for those bodies to fulfil their role). It may, therefore, indentify two related variables: a) the structures and mechanisms of corporate governance - which is in turn subdivided into: i) the board of directors, ii) a number of other structures and mechanisms), b) interests referred to in the process of corporate governance - which is in turn subdivided into i) shareholders, ii) all stakeholders. Thus, it is possible to build a matrix with four quadrants in which it could place the different definitions of corporate governance identified in the literature (Zattoni, 2004).

B) The dimensional logicality highlights how all the definitions of corporate governance may have internal or external value for the company. The former refers to all those features or factors specific to each firm and therefore differ from company to another (e.g. ownership, senior management, administrators). On the other hand, the latter relates to a combination of factors and variables which are not company-specific, but which differ according to the environment in which it operates (e.g. markets, legal system, economic system) (Mazzotta, 2007).

C) The temporal logicality analyses corporate governance in a temporal logic, starting from the end of the fourteenth century (period in which it was used for the first time the word "governance") until today. It analyses the evolution of corporate governance that has had over the centuries, singling out some milestones which often coincide with changes noticed in response to critical situations For instance, the 70s are characterized by the introduction of the audit committee, the dualistic model and the affirmation of the role of independent directors. During the 80s the debate on the governance of companies becomes greater and it is coined the term “corporate governance”) (Tricker, 2009).

D) The accountability logicality aims to provide “a frame of reference depicting the frontiers of research into corporate governance”. In particular, we can identify six dimensions of governance according to which it is possible to map. The six dimensions
identified by a prospective accountability are: i) theoretical framework, ii) mechanisms of accountability, iii) applied methodological approach and techniques, iv) and sectors to context, v) globalization, vi) time horizon (Brennan and Solomon, 2008).

E) *The multidisciplinary logicality* identifies five areas of analysis of corporate governance which are not mutually exclusive to each other. In particular, the prospects for observation are: a) corporate governance and accounting b) corporate governance and finance, c) corporate governance and economic policy d) corporate governance and law, e) corporate governance and business economics (Pugliese, 2008).

F) *Other interpretive logicalities* have been outlined by (Zahra and Pearce, 1989; Costanzo and Priori, 2007; Chiappetta, 2007. Shleifer and Vishney, 1997; Becht *et al.*, 2002; Huse, 2005)

### 2.2.2 Corporate Governance Approaches

It is interesting to note that from a critical analysis of corporate governance literature is possible to identify a further interpretive key. In particular, we seek to create a concept map with the following characteristics:

- It is preferable to study the *approaches* of corporate governance rather than a *definition*. The term "approach" (from the Latin "ad - prope", then "draw") is preferable to a "definition" (from the Latin "de - end", then "close"), because - as shown - corporate Governance is an eclectic, diverse, multidisciplinary issue and it is not easy to set bounds to (to define, in fact) exhaustively the whole issue of corporate governance. It may, therefore, be likely to drawn over (from which "approach") corporate governance outlining the different characteristics of the same.

- It is important to consider corporate governance from a *restrictive* and *extensive* perspective. Zattoni (2000) divides the governance studies on into two broad classes on the basis of the concept of "restricted" or "extended". The former considers mainly shareholders interests and studies the board of directors as a body responsible for the resolution of any conflicts between shareholders and managers. The latter considers corporate governance as a set of mechanisms, procedures, rules and formal bodies in order to satisfy interests of all stakeholders.

- The two perspectives in turn are interpreted according to a *process* and *structure* logicality. *Process* means, however, a set of economic resources and actors which are dynamically coordinated (Van de Ven, 1992; Pye and Pettigrew, 2005). On the other
hand, *structure* means an organization or a group of persons willing to achieve a certain purpose. In this regard, it highlights the static aspect of corporate governance, i.e. a corporate as a structure.

We now depict salient features of the two main approaches to corporate governance: *restrictive* and *extensive*, which in turn interpret corporate governance both as a *process* and as a *structure* (Figure 2.1).

**Figure 2.1 Corporate Governance Approach**

![Corporate Governance Approach Diagram]

### 2.2.2.1 The restrictive approach, structure and process

*The restrictive approach* focuses on two main aspects:

a) shareholders who are the only *stakeholders* of a company,

b) the conflict between ownership (shareholders) and the control (managers)\(^8\).

This concept, therefore, deals with the analysis of the composition, structure and functioning of company bodies, disregarding all aspects of other stakeholders. This perspective of analysis is one of the first proponents Eells (1960: 108) who in 1960 coined the term *corporate governance*, calling it «[...] the structure and functioning of corporate policy». This approach is then defined as a *shareholder view*: «[...] the process of supervision and control [...] intended To ensure that the company's management acts in Accordance with the interests of shareholders» (Parkinson, 1993: 159). Furthermore, it is possible to identify two different conceptions of corporate governance based on restrictive approach. The latter could be viewed as: a) *process*, b) *structure*. The common feature is the analysis object: the *shareholders* and the dichotomous relationship with management. The majority stream (Parkinson, 1993; Monks and Minow, 1995; Turnbull, 1997 Larker *et al.*, 2007) believes that corporate governance is a *process*, i.e. it is the set of relationships among the participants in

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\(^8\) The conflict between shareholders and managers (i.e. agency theory) is explained in section 2.4
corporate life (where participants are shareholders, management and board members) and it is designed to ensure that management actions are consistent with the interests of shareholders. Considering corporate governance as a process rather than as a structure (i.e. static and unchanging) means that the firm management is dynamic, changeable and is, therefore, able to adapt to the turbulent environment. Moreover, Zappa (1957: 13-14) claims that ‘the company is an interconnected system continually disrupted, a structured process of interrelationships necessarily elusive to any static configuration of business economics’. According to this approach, corporate governance is therefore functional to the exclusive protection of shareholders interests, through various control mechanisms, and internal and external bodies. The governance process, therefore, deals with managers to ensure that they act in the owners’ interests. In this regard, Larcker et al. (2007); Forbes and Milliken (1998) believe that corporate governance is to be understood as a set of mechanisms (defined as skills of the board) capable of influencing business performance through of effective strategic decisions. Forbes and Milliken (1998) also emphasize the decisive role played by the Board of Directors which is designed as a link between the shareholders and management (Mintzeber, 1983), but as a group of individuals with the task to «[…] control and service. The board’s control task refers to its legal monitor management on behalf of the firm’s shareholders and to carry out this duty with sufficient loyalty and care. The board’s service task refers to its potential to provide advice and counsel to the CEO and other top managers and to participate actively in the formulation of strategy.

On the other hand, other researchers (Eells, 1960; Cochran and Wartick, 1988; Baysinger and Butler, 1985) argue that corporate governance is a structure or “structured interface” of the company, which is essential for enhancing economic growth. According to this point of view, the economic function is carried out exclusively by the Board of Directors, considered as the main body within the governance structure. In this sense, corporate governance is the way in which companies are governed (Clarke, 2004), or the ways in which capital providers exert control over management, to ensure that their interests are protected (Shleifer and Vishny, 1986).

The main difference between process and structure within the restrictive conception, then, is that the former emphasizes the role of the board as a set of relationships between the various stakeholders of a company (i.e. directors, managers and shareholders); while the latter focuses on the Board of Directors functioning and Senior Management of the company. Indeed, Tricker (1984) states that « […] the governance

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9 Clarke (2004) reckons that corporate governance is as «the cyclical nature of corporate governance failures, which he predicted was likely to continue»
role is not concerned with the running of the business of the company per se, but with giving overall direction to the enterprise, with overseeing and controlling the executive actions of management and with satisfying legitimate expectations of accountability and regulation by interests beyond the corporate boundaries».

2.2.2.2 The extensive approach, structure and process

Corporate Governance extensive approach is the opposite than restrictive approach. The formers is ‘[...] a set of rules, institutions, practices and formal bodies that govern the balancing of the interests of the different stakeholders’ of the company (Zattoni, 2004). It emphasizes, therefore, the importance attributed to the fulfilment of the expectations of all those who, for various reasons, interact with firm activities. This approach is also referred to in the literature as the stakeholder view (Freeman, 1984), as it is emphasized the link between the company and the environment in which it operates. In literature there are many definitions of the stakeholder view/approach, for instance Salomon (2007: 14) argues that it is «[...] the system of checks and balances, both internal and external to companies, which ensures that companies discharge their accountability to all their stakeholders and act in a socially responsible way in all areas of their business activity».

The focus, therefore, is the fulfilment of all the interests of the stakeholders who contribute to the improvement of the economic growth. Stakeholders can be defined as «individuals and constituencies that contribute, either voluntarily or involuntarily, to its wealth-creating capacity and activities, and who are therefore its potential beneficiaries and/or risk bearers» (Post et al., 2002: 8). Like for the restrictive concept of corporate governance, there are two different perspectives of corporate governance. The latter could be studied as: a) process, b) structure.

The majority believes (Bruni, 2002; Lanoo, 1995; Ferraris Franceschi, 2008; Pilotti and Rullani, 2007) that corporate governance is a set of processes, rules, duties, procedures and mechanisms that are substantiated in enterprise system management, control and communication systems of the firm (Quagli, 2004; Mio, 2005). In this regard, interests to protect not only are those of the shareholders (typical of the restrictive view), but also those of the people who in various ways are involved in the company. The protection of those interests is developed through a complex system of relationships between the environment and institutional features of the firm. It is intended, therefore, to put in place a "system of mechanisms" of incentive (Del Giudice and Capizzano, 2006; Forestieri and Iannotta, 2005; Mathiesen, 2002; Kose and Senbet, 1998) to the creation
or maintenance of relationships between the company and its *stakeholders*. This is fundamental in order to satisfy all the relevant expectations, according to a logic of corporate social responsibility (Clarkson, 1995; Harrison and Freeman, 1999; Matten and Moon, 2004; Mio, 2005) and to increase corporate value (Huse, 2006). The existence and transparency in relationships among different stakeholders contribute to generate and trigger a virtuous cycle that allows firm to attract resources necessary for firms. Those resources consequently allow the creation of an economic production for the market, designed to meet interests and needs of the stakeholders, thus generating the so-called *competitive advantage* (Porter, 1995). In this regard, the critical governance tasks is to ensure effective negotiations, coordination, cooperation, and conflict resolution to maximize and distribute the joint gains among all stakeholders. In the same vein, Rasmussen and Huse (2011) define corporate governance as a set of relationship between internal and external actors where the board of directors should create value for company.

The minority stream (Coda, 1997; Bussoli, 2011; Molteni, 2004), however, argues that corporate governance is the *structure* of a company. In particular, it regards the functioning of control and monitoring bodies of a company, with the focus on relationships between firm bodies and the managerial structure. We consider, therefore, the set of standards\(^{10}\), rules, tools, functions that binds the apical structures and members with all stakeholders in business, helping to determine the characteristics of the structure and functioning of companies. (Bianchi Martini *et al.*, 2006).

It is fundamental to understand rules, corporate bodies and activities through which *stakeholders* can exert control over those who act within the company (i.e. management), in order to protect their interests (Kose and Senbet, 1998). It is interesting to note that, according to this perspective, the control is no longer exerted by shareholders over management, but by all those stakeholders (including risk capital providers).

*In summa*, the difference between process and structure within the extensive approach is that the former studies the phenomena of coordination as such processes are managed in a consistent manner, respecting the subject who for various reasons are business-related. The latter (structure) states that the firm as a *nexus of specific investments* (Rajan and

\(^{10}\) "Standards" refers to both the economic and business rules that govern the production combinations is the set of legal provisions which are aimed at ‘[...] to regulate the relations of power between shareholders and management, [...] and achieve an equitable settlement of the expectations of all stakeholders in the management and results of the company and to prevent the structural crisis that could jeopardize the legitimacy of the institutions that underpin a market economy’. (Barile and Gatti, 2007).
A concept which includes both cross-streams of research (*structure and process*), under the concept of corporate governance *broadly*, is that of *institutional framework*, i.e. a “container” for all the elements and variables that compose the enterprise system. In sum, the main issues are stakeholders and their contributions to the company, their rewards (earnings), all the mechanisms and structures that govern the relationships between their contributions and rewards (Airoldi and Forestieri, 1998). Defining the institutional framework means to determine the boundary of the firm with respect to the environment and, in particular, it declines in:

- Outlining the ownership;
- Identifying the firm legal form (cooperative, partnership, corporation, business group);
- Establishing the composition and functioning of the organs of government and corporate control;
- Specifying interaction ways between the company and stakeholders;
- Setting the rules of relationships among companies (business groups, joint ventures, etc.) (Santesso, 2010).  

This approach is similar to that outlined in the international arena by (Daily *et al.*, 2003) define governance «as the determination of the broad uses to which organizational resources will be deployed and the resolution of conflicts myriad among participants in organizations».

Ultimately, crossing the two dimensions (restrictive/extensive approach and structure/process) it is possible to create a matrix within which different definitions of corporate governance are identified. It should be noted that the four quadrants are not considered as *black boxes*, but rather "osmotic boxes." This means that the four dimensions identified are not mutually exclusive to each other, and there may be transverse definitions of corporate governance or common elements (Table 2.1).

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11 Two main criticisms are made: a) the difficulty in creating a real balancing of the interests of all stakeholders, b) the weak correlation between contributions made by business actors and their rewards (Zangrandi, 2008)
### Table 2.1 Summary of Corporate Governance approaches

<table>
<thead>
<tr>
<th>APPROACH</th>
<th>FOCUS</th>
<th>STRUCTURE</th>
<th>PROCESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESTRICTIVE</td>
<td>“Structured interface”</td>
<td>Ways in which firm is governed</td>
<td>Set of internal forces that affect firm processes</td>
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<tr>
<td></td>
<td>“Structured interface”</td>
<td>Ways in which firm is governed</td>
<td>- Set of internal forces that affect firm processes</td>
</tr>
<tr>
<td></td>
<td>- Board of directors versus shareholders</td>
<td>- Set of mechanisms that influence firm decisions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Structure and functioning of the control/monitoring bodies</td>
<td>- Relationship between shareholders and stakeholders</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Rules, principles and recommendations which discipline relations among stakeholder</td>
<td>- fulfilment of all stakeholders’ expectations</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- High attention to social and economic context</td>
<td></td>
</tr>
</tbody>
</table>

Source: our elaboration

### 2.3 Comparison between International and National Corporate Governance Models

It is necessary to point out that ‘Every country system is characterized by systems of corporate governance quite peculiar because of the strong influence that the laws, institutions and social norms, developed and consolidated with the passage of time, exercising on the characteristics and functioning of mechanisms of corporate governance’ (Zattoni, 2006: 202). Literature, however, agrees that the corporate governance models are based on two archetypes: the Anglo-Saxon and German-Japanese models (Cavalieri and Ferraris Franceschi, 2008 Airoldi and Forestieri, 1998 Fortuna, 2001; Cernat, 2004; Rhodes and Van Apeldoorn, 1997, Franks and Mayer, 1997; Shleifer and Vishny, 1997; Aguilera and Jackson, 2003; Jackson, 2005; Cernat, 2004). The Italian model is defined as "mixed", hybrid, spurious (Fabbri, 1998; Melis, 2000; Zattoni, 2005) model that present some common and different features with the international models.

The **Anglo-Saxon countries** (especially the United Kingdom and the United States) adopt the *outsider-type model system* (Jungmann, 2007), i.e. the financial market solves the conflict of interests between shareholders and management. In particular, the capital market is able to regulate the management and encourage the value creation for
shareholders. In a nutshell, this means «market for corporate control» (Singh, 1992). This approach is also called market-oriented, to identify the ‘strong fractionation of the property typical of companies listed on regulated financial markets’ (Fortuna, 2001: 90-92), i.e. «market for corporate control» (Singh, 1992). It follows, therefore, that Public Company is the most prevalent type of firm in this context which is characterized by a pulverization of capital among a multitude of heterogeneous shareholders (Fabbrini and Montrone, 2006; Salvioni, 2007, Zingales, 1995; Brennan and Franks, 1997). Given the high fragmentation of ownership, these companies are more prone to the phenomenon of “contestability of control” which is expressed through the mechanism of the take-over (Perna, 1998; Cisnetto, 2000; Deaki and Slinger, 1997; Shleifer and Summers, 1988). It is a mechanism by which a person proposes to shareholders to purchase their shares at a price higher than the market value, as the latter appears to be excessively lower than the real value that the company could generate if it were directed and managed efficiently. The depreciation of shares, then, in this case is not due to macroeconomic reasons, but rather to conduct evaluations of inefficient production unit. Take-over is an instrument of the “market for corporate control”, as the financial market is potentially in a position to exercise control of the company through the acquisition of the shares at a higher price than the market.

In the case where the financial market is totally efficient, and then in case of extreme pulverization of the property, this could lead to dual effects:

a) the decrease in funding by banks, as shareholders would be able to take out sufficient capital for the growth and development of the company;
b) an increase in incentives and control of managers’ activities with remuneration schemes performance-related (e.g. stock options) (Hart, 1995).

It also notes that ‘the relationships between the various categories of economic agents are realized in the almost complete absence of regulatory obligations’ (Fortuna, 2001: 117-118). This is the common law legal system. The market, therefore, monitors and guides the behaviour of the management. The legal framework adopted by the Anglo-Saxon countries is monistic, i.e. one-tier system (Kluge, 2005). This means that there is only one level (tier) for appointment by the shareholders, who co-opts board of directors members. One-tier system indicates that the role of management and surveillance is concentrated in a single body (i.e. the Board) (Reichert, 2008). Thus, it is crucial to distinguish between executive directors (inside directors) and external non-executive directors (outside directors), as the former have operational functions and delegation; while others do not hold or managerial duties and have the task to make a technical contribution - professional acquired outside the company. It should be noted that within the board of directors is set up the Audit Committee (Figure 2.2).
Given the high fragmentation of the capital, such legal system would provide shareholders of the control of subjects who will manage their own firm. Indeed, board of directors is the direct expression of shareholders.

It is fundamental to focus on subjects who fulfil control activities within one-tier system. The control activity is inherent to corporate governance patterns, as it can be traced to the development of processes aimed at improving the business decisions and the activation of mechanisms to facilitate the correct orientation of management behaviour in relations with firm objectives. Control, then, is characterized by a complex process with a multitude of mechanisms. Indeed, the latter is characterized by a multitude of different subjects: internal organs to the company (the board of directors, auditors, the audit committee, the Committee for Internal Control, Internal Audit, etc.) and external auditors (statutory auditor, external firms auditors, watchdogs of financial markets etc.) (Ruud, 2003; Jungmann, 2007; Solomon, 2007; Nordberg, 2011; Corbella, 1999, Paletta, 2008, Gandini, 2004).

The efficiency of financial market determines the supervision of activities carried out by the board of directors. Directors should carry out their functions in order to satisfy shareholders interests; indeed they act primarily to achieve their own profit goals. Shareholders are able to directly control the actions of managers through the direct appointment of directors. Recent scandals of Public Companies (Enron, WorldCom,
Parmalat, etc.) have reported deficits in the control system (Coffée, 2005; Merchant and Van der Stede, 2007).

However, some criticisms have been levelled at one-tier system. First, managers are actually persons who control the company, even if they are not owners, and may take advantage of their role as "internal" to ensure a power position. Second, such legal system has a strategic focus on the short term and an orientation towards speculative operations, which do not relate to the core business of the company (Ricciardi, 2002).

The Anglo-Saxon model mainly adopts the restrictive concept of corporate governance, as it focuses on the dichotomous relationship between shareholders and management and corporate governance is functional to exclusive protection of the interests of owners.

By contrast, the German-Japanese model adopts the insider system, also known as relationship-based or network-oriented corporate systems. In this regard, there is a poor presence of the financial market and an effective and influential presence of financial intermediaries (banks) which provide risk capital. This model, in fact, adopts a perspective bank-oriented. Unlike the Anglo-Saxon countries, ownership of companies is concentrated: it includes few owners who hold the majority of shares. The institutional structure of these companies, then, is characterized by a high degree of concentration and counts among the main shareholders financial intermediaries, other family businesses and for international investors, i.e. the so-called blockholder (Bolton and Von Thadden, 1998). In particular, the shareholders are distinguished mainly into two categories, i.e. a) "hard core", b) "horses park."

a) The "hard core" (or "hard core" or "noyau dur") (Groenewegen, 2000; Palpacuer, 2006; Montefiori, 2009) consists of a group of shareholders that in this case correspond to banks and State. It should be noted that this model is characterized by a cooperative relationship between the company - banks - states. It is characterized by having a strong decision-making role, also because of the huge financial resources invested by way of equity capital.

b) The "horse park" is made up of investors who hold shares for speculative purposes, or as a form of temporary investments. Those kinds of shareholders are not directly involved in business management. It is interesting to note that in the German-Japanese model, by virtue of the presence of the "hard core" the floating capital is necessarily reduced, and thus the risk of hostile take-over is greatly reduced compared to the
archetype Anglo-Saxon. In this case, the acquisition of the majority is usually done with the consents of shareholders and managers, and for this reason it is defined as “friendly take-over” (Sorci and Faldetta, 2008).

Last but not least, it is important to point out that the company is inclined to find a compromise between the interests of different stakeholders, given the presence of the fractional share. This model is a better development and consolidation in the context of civil law: the legal guarantees and protects the interests of "stakeholders." The legal framework that ensures the proper functioning of the corporate governance is called dualistic or two-tier system/model (Kluge, 2005; Andreas et al., 2012). The latter indicates that there are two levels ( tiers) of appointments. In particular, shareholders' meeting appoints the Supervisory Board representing the supervisory non-executive director with responsibility for monitoring the performance of management (i.e. first level of appointment). The Supervisory Board, in turn, appoints the board of directors that engages in the management and business management (i.e. second level of appointment) (Figure 2.3).

Figure 2.3 The dualistic or vertical model

![Diagram of the dualistic or vertical model]

Source: our elaboration

It is noteworthy to point out that Japan and Germany present corporate governance characteristics very similar (in fact, the literature has outlined the so-called German–Japanese model). However, two governance systems have some peculiarities that make it different from each other and they could be potentially viewed as two different models. The features related to both models are: cross-shareholding (i.e. the cross-
holdings), the bank-company relation and banks are owners. A distinguishing feature of the Japanese model is the "work-centric non-institutionalized", i.e. cooperation between the firm and employees (represented by labour unions) which aimed to foster economic growth. The maximization of shareholders and employees interests fulfilment is a spontaneous process, established over time; while German laws impose a relationship between employers and the board. The German legislation requires, in fact, that the supervisory board is made up also by the workers. In addition, Japanese corporate structure is characterized primarily by large corporate groups (Keiretsu), while the German one is composed by medium-sized companies. Finally, despite the bank-company characterizes both models, it is noted that banks remain owners over time in German companies, while in the case of Japanese banks hold shares only in the period in which the company needs capital funding (Bosetti, 2010; Allen and Zhao, 2007; Gugler, 2005).

The German–Japanese model indeed is based on the extensive conception of corporate governance and stakeholder view, as it is assigned important and decisive roles to all stakeholders towards company. Employees, in fact, are part of the supervisory board; therefore have the task of monitoring the management performance (Baus, 1999). The aim is to achieve and foster a balance between forces and interests which are internal and external of the firm (Williamson, 1998).

Unlike outsider system, in insider system control is not exercised by the capital market, because ownership is concentrated and majority shareholders, involved in the management, are able to influence strategic decisions. The control activity over management is then implemented by blockholder (institutional investors, lenders, etc.) who monitor management through the co-opting of directors. It is interesting to note that the manager could be seen both as a subject to be checked and as the "controller". In other words, he/she is seen as a mediator between the shareholders and other stakeholders (e.g. employees), as arbitrator in terms of maximizing the economic value of the company, as the manager should be able to find out a point of convergence 'objective to which all are interested (Guatri and Vicari, 1994; Podesta, 1993; Aoki, 1994).

Some criticisms of the German-Japanese model concern the relationship with banks which are shareholders. It is called relational bond which means a stable and long-lasting relationship which involves a continuous exchange of information and ideas (Fiori and Tiscini, 2005). Given this type of relation, there is a business management barred to all those people unwelcome to banks. The strong decision-making role of the "hard core" tends to direct the strategic choices and operational management in the interest of shareholders. Minority shareholders also are not able to have an adequate
representation and an appropriate protection of their interests, given the lack of decision-making power.

Melis (2005) and Molteni (1997) state that foreign literature focuses its research primarily on the two archetypes of governance models (Anglo-Saxon and German-Japanese one) and that the Italian case is not directly attributable to them. Indeed, ‘there are clear characteristics of industrial structure and corporate ownership structure, financing circuits’ (Airoldi and Forestieri, 1998). In Italy, there are no large companies which diffuse ownership (as outsider system) or financial intermediaries which are shareholders (as insider system). Banks, in fact, do not confer risk capital, but credit capital, so they do not take part in the firm management and administration. Bank indebtedness, in fact, represents the largest source of financing for Italian companies (Bianco and Casavola, 1999; Melis, 2000).

It is interesting to note that the Italian model has two distinctive features in common with the German-Japanese model or insider system. In particular, in both cases, the property is concentrated, i.e. it detects the presence of a few strong shareholders (the so-called blockholder). However, main shareholders in German-Japanese model are banks and institutional investors, while the one in the Italian blockholder are mainly members of the family and the State. In addition, the legal framework in which German, Japanese and Italian firms act, is the same, i.e. civil law. It is therefore characterized by a system of rules and aggregate, systemic and legal standards.

It should be noted that the Italian model is characterized by being hybrid, spurious, not related to the two archetypes identified in the literature. As regards the common traits with the Anglo-Saxon model, we find that over the years is gradually approaching the shareholder view, which is mentioned in the Italian code of corporate governance for listed companies.

Characteristics of the national corporate governance model present some features that differ from two archetypes.

Italian firms, characterized by a high concentration of ownership, can be divided into two main different types: a) business groups12 owned by family or State (Moro

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12 Business groups can be defined as a «collection of formally independent firms under single common administrative and financial control» (Chang and Hong, 2002: 266). In the same vein, Hseih et al. (2010: 560) state that business group is «collection of legally independent corporate entities that are established under the same control and ownership, each not only sustaining independent firm objectives, but also acting to meet the shared goals of the business group».
Visconti, 2001; Montrone, 2005), b) small and medium sized family businesses or SMEs aggregated into constellations. However, Zattoni (2006) identifies six different types of Italian companies: a) small and medium sized family businesses, b) small and medium-sized enterprises aggregated in form of “constellations” and located mainly within districts, c) the large pyramidal groups controlled by individual family or by shareholders coalitions, d) large companies and large groups controlled by the State and local authorities, e) cooperatives and consortium, f) branches of foreign multinationals. On the other hand, Guatri and Vicari (1994) focus their study on two archetypes of firm: a) family and State business groups, b) Small and Medium Enterprises (SMEs).

In general, firms are characterized by a majority shareholder or a group of shareholders bound by the agreement of the union. It should be noted that under the pressure of globalization of financial market and European integration, companies are starting to get a new road that would lead them to be influenced by Anglo-Saxon model and then the outsider system (Bianco and Trento, 1995). Main shareholders are members of the family or holding where the family is the controlling shareholder. It follows that corporate ownership is constituted by the blockholder, i.e. few owners who hold majority and therefore have a strong decision-making power. The latter ensures a more stable ownership, compared to companies such as Anglo-Saxon, as well as approve strategic plan which is shared and homogeneous.

Given the high concentration of corporate ownership, the control system of management is entrusted to blockholders (individual owner or group of few owners), rather than to the market or to the board of directors. This corporate structure is typical of countries that have a legal system of civil law. In particular, in the Italian model there is a kind of insider control which is exercised by ownership. This system of governance is also defined insider system of the Latin type to differentiate it from the German one. The former foresees that the majority shareholders control managers by the board of directors, while the latter provides a strong participation in the control of employers and banks (Melis, 2000; Luo, 2006).

The advantage of insider system of the Latin type is that the control over management is direct, i.e. blockholder controls directly managers’ activities. It follows that the control, executed by owners on managers, should avoid or minimize any opportunistic behaviour that the former could implement. This results in a minimization of so-called problems or agency costs which represent the peculiarities of the Anglo-Saxon model. The risk, however, is the high possibility of collusion and connivance between the
management and the majority shareholder, to the detriment of the interests of minority shareholders and stakeholders.

The criticisms of the national model of corporate governance are mainly three:

1. difficulty in finding financial resources;
2. little will and scarce need to increase the company due to the threat of losing firm control;
3. poor communication to external investors.

First, the difficulty in finding financial resources is due to concentrated ownership: belong to the same family. It follows, therefore, that there is a high level of indebtedness to banks and low level of equity.

Secondly, little will and scarce need to increase the company, due to the threat of losing firm control, leads to two main consequences: a) the aforementioned high level of indebtedness to banks; b) the stock exchange does not seem to be a valid tool for finding financial resources. Owners, in fact, may see access to Capital Company by third parties which can compromise the ownership stability and decision-making power. Furthermore, owners have no incentive to list company on stock market due to both the lack of protection of minority shareholders and the no application of rules. The common law countries, however, would ensure greater protection of minority shareholders (Lazzari, 2001).

Finally, it is often assumed that family members hold an absolute majority and thus it is guaranteed a stable ownership, there could be also shared strategic plans, and a lack of "openness" towards the environment. In other words, there may be a tendency to limit communication to external investors or stakeholders, making it difficult paths valuation put in place by the latter.

Italian firms are then characterized by:

- significant presence of the State;
- poorly active role of institutional investors;
- strong presence of households;
- little active stock market;
- strong presence of banks in financial capital, rather than in the equity. In this way, lenders do not perform the function of monitoring, typical of the German-Japanese model.

The typical Italian legal framework of governance is "traditional" or otherwise called "two-tier horizontal" (Figure 2.4).

**Figure 2.4 The traditional model or dualistic horizontal model**

Two-tier horizontal model is coined by Lacchini (2002) to indicate that the system of corporate governance requires that shareholders' meeting appoints both the Board of Directors and the supervisory board. They are, therefore, lacking the two levels of appointment, which characterize dualistic vertical model or two-tier system. In the traditional or two-tier horizontal model, the board of directors defines the strategic and organizational actions. Within the board, committees (as in the one-tier model) could be set up which they are assigned specific tasks. The Supervisory Board (appointed by the shareholders) is the body responsible for the control and supervision of compliance with legislation in the broad sense (Lacchini, 2002; Fiord and Tiscini, 2005; Gugler, 2005). It should be noted that in view of European integration and globalization, the Italian legislator has rearranged and integrated principles and rules of corporate governance within single body of law. Lawmaker predicts, for example, the opportunity for Italian companies to adopt either one-tier system or the two-tier one, instead of traditional system (Gandini et al., 2009).

Below, we report characteristics of the two archetypes of corporate governance (the Anglo-Saxon model and the German-Japanese model) and the Italian model (Table 2.2).
Table 2.2 Conceptual Map of comparative corporate governance models

<table>
<thead>
<tr>
<th>Countries</th>
<th>Governance Systems</th>
<th>Financial Source</th>
<th>Ownership</th>
<th>Firm</th>
<th>Board Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK - USA</td>
<td>Outsider system</td>
<td>Market</td>
<td>Strong division</td>
<td>Public company</td>
<td>One tier</td>
</tr>
<tr>
<td>D - J</td>
<td>Insider system</td>
<td>Bank</td>
<td>High concentration</td>
<td>Blockholder</td>
<td>Two tier</td>
</tr>
<tr>
<td>IT</td>
<td>Latin Insider system</td>
<td>“irregular case”</td>
<td>High concentration</td>
<td>Pyramidal group + SME’s</td>
<td>Traditional</td>
</tr>
</tbody>
</table>

Source: our elaboration

It is interesting to note that in recent decades we are witnessing rapid economic growth of the so-called BRICS (Brazil, Russia, India, China and South Africa) that has led some authors (Estrin and Prefer, 2010; Epstein, 2012) to outline a third possible archetype of corporate governance, BRIC model. The latter is characterized by a stakeholder view that corporate ownership is concentrated and is characterized by the strong role played by the State or by some families. The system of controls, though still weak and fragmented, is entrusted to stakeholders but in particular to the state. What emerges from the BRICS model of corporate governance is strong and the real risk of corruption existing between the state and business, thanks to a significant weakness in the stock market and the lack of a solid legal system – legislation (Gerlach, 1992; Heugens et al., 2009; Lubrano, 2007; Campos and Iootty, 2007).

2.4 International Theories of Corporate Governance

In addition, before explaining theories on the basis of Anglo-Saxon, German-Japanese and Italian models, it may be useful to describe main features of corporate governance international theories, i.e. Agency, Stakeholders, Stewardship, Resource Dependence.
theories. They are the cornerstone of corporate governance and the pillars of corporate governance models. It appears necessary to highlight the main features of theories to better understand mechanisms, properties of Anglo-Saxon, German-Japanese, Italian models.

2.4.1 Agency Theory

The dominant theoretical perspective applied in corporate governance is agency theory (Shleifer and Vishny, 1997; Dalton et al., 1998; Daily et al., 2003). Jensen and Meckling (1976) propose agency theory as an explanation of how companies (especially public company) could operate, given the main assumptions that managers are self-interested and a context where those managers do not care about the full wealth effects of their decisions. In particular, they define agency relationship as a contract in which one party (the principal, i.e. shareholders) gives other party (the agent, i.e. management) decision-making power to perform business activities on its behalf. That may be the first adequate explanation of public companies mechanisms since Berle and Means (1932) observed the key problems regarding the separation between ownership and control.

In this pattern, management and ownership are separated, and management, who are shareholders’ agents, could not necessarily act in the best interest of shareholders owing to the divergence of interests, and therefore resources are not expended to maximise the latter’s wealth (Berle and Means, 1932; Jensen and Meckling, 1976; Gillan, 2006; Gonzalez and Garay, 2003). However, according to Fama and Jensen (1985), if there were fully competitive markets for products, labour and corporate control, there would not be costs of agency, because self-interested managers would maximize their wealth by maximising shareholder value.

In general terms, basic agency problems arise because of the separation between decision-making which is carried out by managers and the bearing of residual risks by

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13 It is noteworthy that other theoretical perspectives may exist, such as institutional theory (DiMaggio and Powell, 1983; Eisenhardt et al., 1997), transaction cost theory (Cyert and March, 1963; Williamson, 1996) What is important is that every theory of corporate governance is founded on a view on the legitimate relationship among firm subjects and between firma and environment (Tricker, 2009).

14 It should be noted that international contributions believe that the authorship of the agency theory is due to Jensen and Meckling (1976), and that - even before - Berle and Means (1932) and Coase (1947) were the supporters and inspirers of same . Indeed, Cerboni (1886; 1894; 1902), considered the greatest exponent of the account personalistic theory father and accounting application called Logismography, hrhad the intuition of the dichotomous relationship between ownership and control. The Logismography, in fact, is based on the contrast between the owner and the agency (i.e., stakeholders and the corresponding) which exist between the economic and legal relations . It is clear, therefore, that the same had identified a direct relationship between the ownership and administration, intended as the only two subjects that characterize the firm. Cerboni then threw in fact the basis for the agency theory which in later years has been studied by several authors (Coronella, 2007).
owners. Agency problems are costly controlled due to the impossibility of perfectly contracting for the actions of an agent whose decisions impact both his/her own wealth and principal wealth (Brennan, 1995). It is interesting to point out that Clacher et al. (2010) identify type I and type II agency costs. Type I agency costs are defined as the value loss to shareholders rising from the cost of minimizing divergences of interest between shareholders and managers. In this regard, Jensen and Meckling (1976) identify three types of costs, namely monitoring costs, bonding costs and residual loss. Monitoring costs are expenditures paid by shareholders to measure, observe, and control the agent behaviour. These costs could include audits, cost of hiring and firing top managers, writing executive compensation contracts. Bonding costs are related to the fact that agents have to set up mechanisms/structures what will see them acting in shareholders’ best interests. This kind of agency cost, which is borne by agent, may include effort of providing accurate and timely information to principal (Clacher et al., 2010). Finally, residual loss arises from conflicts of interest between shareholder and managers, due to the lack of alignment of interests. Residual loss represents the net loss (in excess of any accrued benefits) from enforcing suboptimal incentive contracts (Jensen and Meckling, 1976; Clacher et al., 2010). However, agency costs type I take into account only the United States characterized by atomistic shareholders which do not own enough equity to exert influence over managers.

Considering the importance of minority shareholder rights (Bennedsen and Wolfenzon, 2000), and family firms ownership structure (Stein, 1988/1989), type II agency costs arises. They may include controlling minority shareholders, investment motivates in family firms and cost of succession. Controlling minority shareholders problem may arise as a consequence of the conflict between controlling (majority) and non-controlling (minority) shareholders, especially when founding family owners have control over the firm despite owning only few shares. Clacher et al. (2010: 151) suggest that «By controlling the firm through majority voting rights, family owners can undertake actions that expropriate wealth from noncontrolling shareholders». This may occur because the controlling stake allows family owners to marginalize non-controlling owners (Gilson and Gordon, 2003). Investment motivates in family firms problem may arise from the fact that controlling family ownership may also lead to suboptimal investment decisions and may undertake strategies which are in contrast with minority shareholders’ interests. Finally, costs of succession regards that during company existence, firm passes from one generation to the next leading to a loss of talent, and expertise (Mork et al., 2000). As a result of successive intergenerational transfers of the firm, performance will decrease and affect small shareholders (Clacher et al. 2010).

It follows that agency theory seeks to identify and strength the mechanism which may minimize management’s opportunistic behaviour in order to reduce negative effects on shareholder wealth (Kosnik, 1987).
In this regard, agency theorists reckon that the board of directors is one of possible solutions to agency problems within the company through their role as the internal link between owners and managers and gatekeeper of shareholder interests (Certo et al., 2006; Choi et al., 2005; Filatotchev et al., 2005).

Finally, looking at corporate governance under the lens of agency theory enables researchers to study the relationship between governance processes and corporate performance (Tricker, 2009). In particular, they test hypotheses according to which casual relation between governance systems, established to control the agent, and the effect on principal interests may exist. Indeed, agency theory provides statistically rigorous insights into corporate governance processes (Tricker, 2009). Given the model simplicity and the availability of both reliable data and statistical tests, agency theory offers a powerful approach to corporate governance. Moreover, agency theory practice focuses at level of shareholders and boards of directors as entities. All inter-personal relations and level activities are considered as black box (Huse et al., 2009). Therefore, researcher does not need access to the boardroom or individual directors. He/she uses data available in the public domain, for instance data contained into annual report, financial database.

Figure 2.5 depicts the interaction and relationship among principal, agent and board of director where the latter acts as a “platform” between two parties, i.e. it seeks to mediate demands and interests of principal and agent.

Figure 2.5 *Agency relationship*

！[](image1)

Source: our elaboration on Tricker (2009)
2.4.2 Stakeholder Theory

The stakeholder theory initially dealt with those groups without whose support the company cease to exist (Freeman, 1984). However, this view has been expanded including any individual or group who can affect or is influenced by the firm activities (Freeman, 2010; Sternberg, 1997). The pillar of stakeholder theory is that companies play by creating value for which others freely trade. In other words firms should be governed for the benefit and interests of all stakeholders, i.e. customers, employees, suppliers, communities as well as managers and shareholders. Hence, the firm is a system where its purpose is to create wealth for all its stakeholders, including shareholders (Clarkson, 1995), because all of them participate in business to obtain benefits. It follows that it becomes fundamental to understand the needs of the different stakeholders and how they are affected by firm activities (Freeman et al., 2004). In this regard, the board is seen as the means through which the company can take into account various interests of stakeholders group and individuals who affect the firms activities (Donaldson and Preston, 1995, Freeman, 2010; Freeman et al., 2004). So, the board duty is consider wide range of interests when deciding how to employ firm resources, not only to maximize shareholders’ value but all stakeholders’ wealth. Unlike agency theory according to which managers are acting and serving for shareholders, stakeholders theorists posit that managers have a network of relationship to serve. Thus, the group of network is important other than owner-manager relation as in agency theory (Freeman, 1999). In the same vein, Turnbull (1997) points out the importance of a broader stakeholder view, as expectations of firms are changing with increasing demands for better consumer, environmental and social behaviour.

2.4.3 Stewardship Theory

The stewardship theory is initially defined as a direct challenge to agency theory (Donaldson and Davis, 1991). In particular, managers are considered as good and trustworthy stewards of firm assets who do not tend to have inappropriate and opportunistic behaviour (Donaldson and Davis, 1991; Finkelstein and D’Aveni, 1994). The stewardship theory states that managers are not prone to self-serving conduct, hence their behaviour and actions are aligned with those of shareholders, and this is possible through appropriate incentives and rewards (Davis et al., 1997). It follows that stewardship theory does not necessarily consider the separation with ownership and control like a problem, but like a positive development that may lead to an effective management of the company. Unlike agency theory, stewardship theory states that managers do not always act to maximize their own personal interests; i.e. they could play their role responsibly with independence and integrity. Stewardship theory
recognizes the importance of structures that empower the manager-steward and provide autonomy to act thanks to trust relationship between owner and manager (Donaldson and Davis, 1991). This may minimize the costs of monitoring and controlling behaviour of agents (Davis et al., 1997). In this regard, each company is incorporated as a separate legal entity (Tricker, 2009). Shareholders appoint directors who act as stewards for their interests. Managers report to the former on the results of stewardship. Ownership is the basis of power over the company. Managers accept a fiduciary duty to be stewards of shareholders’ interests, indeed the belief that managers can be trusted is one of the pillars of the stewardship theory. Moreover, stewardship theory recommends unifying the role of the CEO and the chairman in order to reduce agency costs and to have greater role as steward within company. Figure 2.6 shows the relationship between shareholders and managers.

Figure 2.6 Relationship between principal and agent

![Diagram showing relationship between principal (shareholders) and agent (managers)](source: our elaboration on Tricker (2009: 224))

Indeed, the depth of knowledge, commitment, and access to current operating information and technical expertise of managers are fundamental to the effective running of the company than any potential agency conflicts that may arise (Learmount, 2002). Thus, stewardship theory changes the focus; i.e. highlights the importance of the concentration of power and authority in the hands of managers rather than the board, in order to foster the firm performance. In addition, according to steward theory managers have to recognize the interests of all stakeholders (e.g. customers, employees, suppliers, etc.) but their first responsibility is towards shareholders. For example, a family founded a firm but no longer control, so it appoints directors who look after the interests of family and not necessarily of other shareholders or stakeholders.
2.4.4 Resource Dependence Theory

The Resource Dependence Theory argues that the firm’s internal resources and capabilities are critical for creating its competitive advantage (Baysinger and Hoskisson, 1990; Ayuso and Argandoña, 2007). Companies may be suffered a lack or scarcity of internal resources and internal knowledge (Storey, 1994). So, in order to get over this situation, the board of directors is a fundamental source of expertise that complements management with their knowledge, skills and professional experience. Boards may be helpful to the company in providing advice and counselling to managers in case of limited or lacking inside knowledge. Moreover, resource dependence theory believes that firm depends on its environment and other organisations for its economic success (Pfeffer, 1972; Johnson and Pillai, 2010). It follows that that unlike agency theory and stewardship one, the main issue is the relevance of external linkages and networks which are fundamental to increase power within society to, in turn, enhance the firm’s interests (Pfeffer and Salancik, 1978; Pettigrew, 1992). In addition, the board of directors serves the means to manage the firm’s dependence on external suppliers of resources (Hillman et al., 2000) as well as to foster and consolidate its position and power in the market (Kosnik, 1987; Pettigrew, 1992). It follows that this theoretical approach suggests that the board is the focal link between the firm and its external network (Kiel and Nicholson, 2003). Indeed, directors are considered as «boundary-spanning nodes of networks able to connect the business to its strategic environment» (Tricker, 2009). Those networks and external links are necessary in order to reduce uncertainty in corporate decisions. Consequently, directors are pivotal nodes within external network of firms and boards. For instance, chairman or CEO may be pivotal nodes in numerous networks, enhancing or adversely interfering with independent and objective governance activities. Thus, it is important to identify such networks and monitor their activities, providing another insight into governance powers and processes. Figure 2.7 simplifies the relations may exist according to Resource Dependence Theory.
2.5 Models and Theories of Corporate Governance

Literature (Coase, 1947; Jensen and Meckling, 1976; Parbonetti, 2006; Baker and Anderson, 2010; Cernat L., 2004, Rhodes and Van Apeldoorn, 1997; Franks and Mayer, 1997) is unanimous in considering that the Anglo-Saxon and German-Japanese are based respectively on agency theory and that of the stakeholders. There are no special contributions that highlight the relationship between the atypical Italian model and corporate governance theory. For this reason, we try to outline what theories might exist on the base of the national model. As the Italian case a model in its own right, having similar characteristics on the one hand and on the other the opposite characteristics to the two archetypes, the theory behind the corporate governance, therefore, cannot be exactly coincident with that detected in international models.

It is noteworthy to point out that the identification of the theory of corporate governance is essential, in the opinion of the writer, in order to identify an empirical model designed to measure the corporate governance in the Italian productive combinations, this being the aim of the broader research project of PhD.
2.5.1 Anglo-Saxon, German-Japanese models and International Theories

Regarding the Anglo-Saxon model, the base theory is the agency theory focusing on the conflict between the principal (shareholders) and the agent (managers) (Jansson, 2005; Cernat L., 2004; Shleifer and Vishny, 1997; Clarke 1998). Agency problems arise when there is a delegation of shareholders powers to managers, and both of them necessarily pursue different objectives. Indeed, shareholders require a regular income in the form of dividends, while management tends to maximize its own profit. It follows that the need of shareholders to monitor managers’ actions rises (Zattoni, 1999, 2006; Solomon and Solomon, 2004). So it is required governance structure that safeguards the interests of shareholders; in the one-tier model, in fact, shareholders’ meeting appoint their representatives, i.e. board members. The presence of a dispersed and fragmented capital (i.e. Public Company) has determined, therefore, a separation between ownership and control.

As for the German-Japanese model, the base theory is stakeholders one (Jansson, 2005; Clarke, 1998). Firm, in fact, cannot sacrifice interests of all stakeholders in order to maximize profit and foster economic growth (Sciarelli, 2002). The manager has the right and the duty to negotiate, engage and coordinate all stakeholders. In the dualistic model, the supervisory board is expected to attend, among others, workers' representatives and institutional investors. This confirms the importance that stakeholders play in the government of productive combinations (Guatri and Vicari, 1994).

2.5.2 Italian model and International Theories

With regard to the Italian model, literature is not prolific on the theory of corporate governance that underlies such model, but it studies the function and main features of the “Italian case”.

Moreover, the national model cannot lead back to two over described archetypes described above. The theory that is the base of the national corporate governance is not possible to link totally with no one of the over mentioned theories. It is noted that, in keeping with the contigency approach, it is not possible to identify a single theory with the Italian model, but some aspects of similarity with other theories can be found out. There is, in fact, no "one best way" to understand what is the best corporate governance system, so it may not exist a single theory behind the Italian model, but they may vary at the same changing environmental factors. Indeed, the complexity of economic and social context is also reflected in an expansion of possible solutions for companies,
leading to the coexistence of several models (Di Toro, 2010: 146) and theories of corporate governance.

Indeed, it is possible to notice similar characters with agency theory, stakeholder and resource dependency.

Italian companies have mainly concentrated ownership and are family businesses; therefore ownership structure is made up by blockholder (or "hard core") and minorities. One of problems is the relationship between majority and minority shareholder, namely some conflicts of interest between the blockholder and minorities could arise. Indeed, the former could take decisions that may damage minorities’ interests. Moreover, within pyramid group, decision-making process is centralized (i.e. holding decides strategic plans) and therefore decisions could be oriented to meet the objectives of the majority shareholders (Bianchi et al., 1997). In some cases, the subsidiaries may have, in fact, less discretion to act with respect to the holding, as it must be confined to realize the company's policy decided upstream.

Consolidated financial statement is a powerful tool used by companies to provide clear and transparent information about the governance structure of the group and protections for minorities. However, empirical studies have shown that disclosure does not provide the transparency requested by the financial market (Montrone, 2004).

The exercise of control enables its holders to benefit largely of private benefits. These are known as Private benefits of Control which are sources that are not shared among all shareholders in proportion of shares owned, but it is enjoyed by the majority (Barclay, 1989; Dick and Zingales, 2004). Unlike private benefits of control, shared benefits of control «arise from the superior management or monitoring that can result from the substantial collocation of decision rights and wealth effects that come with large-block ownership». (Holderness, 2003). In support of this, some empirical studies have put emphasize that «firm with cash flow valuation increases ownership in the hands of the largest shareholder» and «Increases in control rights by the largest shareholders are accompanied by declines in firm values» (Claessens et al., 2002).

The agency problems that characterize the Public Company could then be the same as those that characterize Italian firms. It is plausible to argue that the agency theory could be the basis of the Italian model.

It is interesting to note that Italian researchers (Bianco and Casavola, 1999; Melis, 2000; Fortuna, 2010) highlight the strong interaction between the company and its stakeholders. The fulfilment of stakeholders’ interests is fundamental to achieve and foster firm economic growth, since the latter is reaching safeguarding interests of all stakeholders. In this highly dynamic and changing environment (mainly due to the globalization of financial markets, crisis of all markets and companies) economic growth and fulfilment of stakeholders interests are closely related. The firm should pay
attention to stakeholders for at least two main reasons (Donaldson and Preston, 1995). First, it can be considered that their requests have intrinsic value, so the firm has the responsibility to meet their legitimate claims. Second, addressing interests of stakeholders who have influence on the company can improve its profitability. In this regard, firm to be viable over time should demonstrate its ability both to achieve different objectives of different stakeholders and to distribute the value created in ways that maintain their commitment.

Bankruptcies of Parmalat, Cirio, and Alitalia have shown that, there are many other stakeholders (e.g. employees, suppliers, customers, lenders) as well shareholders, who have paid consequences of company disruptions. Hence, the need to consider governance in a broader perspective arises; governance bodies should mediate different interests of the stakeholders and consider the expectations of all parties, when defining business objectives (Huse, 2005; Solomon, 2011). It may happen that strategic decisions are entrusted specifically by few people, but the company's choices are placed in the interest of all stakeholders (Fellgera, 2008). The need to establish relationships with various stakeholders and the fulfilment of their interests arise and develop within the current social-economic context which is highly dynamic and turbulent. The globalized market, the speed and the spread of information among different firms, and the external environment highlight the need to build relationships to be worth over time with all those who may - directly and indirectly - affect business management (Salvioni, 2010). It also notes that the Italian business environment is characterized by the Small and Medium Enterprises in which shareholder coincides with the company manager. Ownership is highly concentrated, therefore, represents one of peculiar characteristics of the national system of corporate governance. It follows that the owner has a central role within the financial market. It is necessary to build relationships with all stakeholders (e.g. customers, suppliers, institutions, competitors, banks) which could contribute to the maximization of economic performance, as the company could have significant benefits from the business network and the relationships among different subjects. The owner-manager should create formal and informal ties aimed at increasing economic performance or firm value (Birley, 1985; Larson, 1992). Furthermore, it is important to focus not only on minorities but also on all other stakeholders that are closely related with firm and on fulfilment of their interests in order to create “good governance” and then a “good performance”.

It follows, therefore, that the theory on the basis of Italian model could be the stakeholder theory.

Another aspect to consider is that many Italian firms are characterized by being lumped in the form of constellations and located mainly within districts (Fabiani et al., 2000). Industrial Districts are geographic areas where there are local agglomerations of SMEs specialised in one industry and sharing idiosyncratic, community-external externalities
(Marshall, 1921 cited by Asheim, 2003). They are characterized by strong collaboration links; this allows each individual company to mature a strong specialization that is able to bring a *quid pluris* within its own production cycle (Piore and Sabel, 1984). This concentration of firms in a specific area allows them to have a privileged access to inputs and resources. In order to reduce the uncertainty of external environment and thus to ensure the resources availability for the survival of the company, directors should fulfil the *networking* role. This means that directors of various companies (the so-called *interlocking directors*) must, therefore, intensify collaborations and synergies with other companies, in order to acquire information on markets and competitors in order to get a privileged access to resources and to counter any threats, to influence the activity of other companies (Giubitta and Gianecchini, 2002). The *networking* function appears to be peculiar in two main situations: i) during the firm crisis, ii) on a regulated market, such as business districts. First, when a firm starts having negative performance, the board of directors or the owners seek to enter into agreements and *partnerships* with other companies in order to ensure and share the resources required to promote economic growth of their firm. Secondly, within a regulated market (e.g. industrial districts) the board of directors should consolidate the network of relationships, partnerships and synergies with other companies (belonging to the same *‘filières’*) in order to obtain and share inputs needed for the achievement, maintenance and improvement of the economic growth. These are main results obtained from an empirical study conducted in 2003, having as a sample of Italian firms medium – large (Zattoni et al., 2010). Similar results are yielded in other studies of Anglo-Saxon countries (Carter and Lorsh, 2004; Hillman, et al., 2000).

*Resource dependence* theory focus on the need to get privileged access to inputs and therefore it is essential to the role of the board which has to establish and foster high relations between the changing environment and the company. Consequently, firms act in the changing and dynamic environment that binds and influences activities. It follows that the Italian model might have also the basis for the theory of *resource dependency* (Figure 2.8).

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15 *‘Filières’* includes complementary activities (Morvan, 1985), e.g. the production of shoe-production machinery if the ID is specialised in shoes (Fabiani et al., 2000). In other words, *‘filières’* or supply chain is a «network of organizations involved in the different processes and activities producing value in the form of products and services for the ultimate consumer» (Albino et al., 2007: 261)
Finally, it appears that the Italian model is based on three different opposing theories: *agency theory*, *stakeholder* and *resource dependency*. The coexistence of different perspectives is due to conditioning economic and social factors typical of national reality (Fortuna, 2001). The latter, in fact, is the result of the peculiar existence of different balances of interests and powers that characterize the company itself.

### 2.6 Summary, Conclusions and Research Implications

#### 2.6.1 Summary

Corporate governance debate becomes very important mainly in a moody, dynamic context as the actual one. Changes, created by the global competition, financial globalization and crisis, contribute to enforce the function of control, strategies definitions and networking of the company.

Literature interprets corporate governance patterns using two antithetic models: the Anglo-Saxon and the German-Japanese ones. Corporate governance Italian model, instead, is an uncommon case because, although it presents some features in common with those two models, it owns high differences. Literature underlines the relation between the Anglo-Saxon model with the agency theory and the German-Japanese model with the stakeholders theory. However, literature does not clarify what is the base theory of the Italian corporate governance model. Starting from the point that the Italian case is a unique model, the corporate governance theory cannot be the same as the international models. This chapter contributes to understand the relationship between
the Italian corporate governance model and theories. In particular, it comes out that the *Italian model* is based mainly on three different theories: the *agency*, the *stakeholders* and the *resource dependence theories*. The coexistence of the different perspective is to ascribe to the influencing typical social-economic features of the national environment. Those ones are the result of the existence of various interests and balances marking out the company itself.

Once identified the perspective or theoretical approach which better explains Italian model, it could be possible to identify research hypothesis, variables which could be tested.

### 2.6.2 Conclusions and Research Implications

Previous studies on the impact of governance issues of firm performance have focused almost solely on a single institutional setting, North America. Indeed, agency theory was born and developed in the US where the separation between ownership and control is stressed. Law and economics perspective (e.g., La Porta *et al.*, 2000) suggests that countries may have different governance systems that may lead to differences in the nature and extent of agency problems on the firm level.

From this chapter it emerges that Italian firms are interested to study as the lack of research regarding the relationship between Italian model and theories of corporate governance. Indeed, Italian model presents similar characteristics of both archetypes (Anglo-Saxon and German-Japanese models) and at the same it has peculiar features that make it hybrid, spurious, and so interesting to study. For this reason, we decide to focus our attention on Italian firms.

Moreover, from this chapter it comes out that the *Italian model* is based mainly on three different contrasting theories: the *agency*, the *stakeholders* and the *resource dependence theories*. The coexistence of the different perspective is to ascribe to the influencing typical social-economic features of the national environment. In the next chapter we seek to understand if the convergence relating to Agency theory is an ongoing process for Italian companies. This is fundamental in order to understand which theory should be adopted for our research.
CHAPTER 3 - The Board of Directors

Contents: 3.1 Introduction; 3.2 Why Board of Directors is important?; 3.3 Why restrictive approach?; 3.4 Board of Directors features, Codes of Corporate Governance, Theories and Empirical Research, 3.4.1 Main Board of Directors features, 3.4.2 American, English, German, Japanese and Italian Codes of Best Practice and Board of Directors features, 3.4.3 International Theories, Empirical Research and Board of Directors features; 3.5 Codes, Theories and Board features: convergence or divergence?; 3.6 Summary, Conclusions and Research Implications, 3.6.1 Summary, 3.6.2 Conclusions and Research Implications.
3.1 Introduction

The board of directors is a decisive part of the corporate governance structure and its performance and efficiency enhance the success of monitoring and the operation of the company. Internet technology, market turbulence and globalization provide a complex set of challenges for companies and boards. The latter addressing all requests and needs directed at its members, facing those challenges, should carefully manage its own infrastructure, i.e. experienced and skilled members, capabilities and resource to ensure it acts at its best (Aluchna, 2010). The board has also to protect interests of shareholders who are a fundamental source of external financing for firms; monitor of executives; evaluate strategic planning; address all legal demands; ensure integrity and transparency for corporate disclosure, report and communication. It follows that the complexity of the board role is a pivotal research area to better understand inner mechanisms of corporate governance.

This chapter analyses the key role and importance of the board in the corporate governance structure. It attempts to discuss features of the board referring to different perspectives, i.e. codes of best practices, corporate governance theories and empirical research. Furthermore, we want to understand which international theory is adopted by codes. Thus, it is interesting to find out if convergence process towards a single standard of rules is ongoing or if each code which makes up the Anglo-Saxon, European and Italian models adopts different theories.

The chapter is organised as follows. Section 3.2 discusses reasons which explain why the board of directors is so fundamental in corporate governance and within the firm. Section 3.3 highlights the relevance of agency theory which is the theoretical approach we adopt for this research. In section 3.4, key success factors of the board are explained and developed under the lens of codes of best practices and corporate governance theories. In section 3.5, we seek to understand if the convergence of codes of best practice relating to Agency theory or Shareholder approach is an ongoing process. Section 3.6 concludes this chapter and it presents research implications.

3.2 Why is Board of Directors important?

The comparative analysis of Corporate Governance shows different characteristics in governance and control mechanisms applied in different countries, implying a starting point for studies in efficiency of the mechanisms used. In fact, national differences could be depicted in the board model, its composition, structure, policy and practice - as revealed in previous chapter – the comparative analysis provides the great importance of
board in each country, each company and corporate governance system. According to all national approaches, «the board should represent the interest of company and look after the shareholder interests of corporate performance, generated profit and realized dividend» (Aluchna, 2010, p.154).

Baysinger and Butler (1985) reckon that the Board is one among many elements of corporate governance, otherwise other scholars (Petrovic, 2008; Baker and Anderson, 2010) deem that it is the highest and the most important authority in the firm and the key institution within company. Hence, the board plays a fundamental role with respect to internal and external activities. As far as the former is concerned, it has the power and the responsibility to hire and fire top executives (Baker and Anderson, 2010); moreover it has the role to design and implement firm strategy (Ruigrok et al. 2006). In particular, it is the major decision-making body in a company. Thus, the board is responsible for assessing and approving the most important strategic and financial plans (e.g. Merger and Acquisitions), changes in capital structure (Ferreira, 2010). This internal analysis is also called shareholder view (Berle and Means, 1932; Jensen and Meckling, 1976; Shleifer and Vishny, 1997; Gonzalez and Garay, 2003; Gillan, 2006). With respect to the board external activities, it has the role to foster links between firm and its external environment and seeks to address the needs of different stakeholders (Ayuso and Argandoña, 2007). In the same vein, Rajan and Zingales (1998) and Zingales (1998) claim that the firm has to assure the interests of all who contribute to increase firm performance and value creation. For these reasons «The board is often a key institution for the discharge of accountability but also, more complex and more interesting, for the engagement of key constituents of corporate governance» (Ahrens, Filatotchev, Thomsen, 2011, p. 319). This external analysis is also called stakeholder view (Clarkson, 1995; Harrison and Freeman, 1999; Mintzberg, 1983).

In this research, we focus our attention on internal activities of Board, so we adopt the so-called shareholder view, because there is not much research on Italian listed companies following the aforementioned approach. In the same vein, the board is an economic institution that has risen endogenously in response to agency problems regarding each company (Hermalin and Weisbach, 2003). It acts as a representative of shareholders and is considered as a major decision-making group (Kumar and Singh, 2013). The board is corporate governance mechanism and control instrument to converge shareholders and management interests (Elsayed, 2011). It follows that it is fundamental the board task of monitoring activities of top management to ensure that latter acts in the best interests of shareholders (Jensen and Meckling, 1976). From this perspective the board is «the link between the people who provide capital (the shareholders) and the people who use that capital to create value (the managers)»
(Monks and Minow, 2004). Hence, it is like a platform where board has to mediate shareholders and management interests, as matter of fact, the former constitute the powerful group that runs and controls the company (Roe, 1994). The board acts on behalf of capital providers and achieves this task by reducing agency costs (Fama and Jensen, 1983).

In a nutshell, agency costs are rooted in moral hazard; i.e. shareholders face the information asymmetry of hidden actions that rise from the opportunistic behaviour of managers who are playing their own role within the framework of incomplete contracts, primarily in their own interests (Fama and Jensen, 1983a; Fama and Jensen, 1983b). Agency costs could be summarized in 1) monitoring costs, 2) bonding costs and 3) residual loss (Bowrin et al., 2006). Monitoring costs refer to the necessity of principal to provide suitable incentives for the agent and also establishing monitoring mechanisms to control any deviant activities of the agent. Bonding costs regard resources spent by the agent in order to guarantee that he or she would not take actions which damage the principle (e.g. the bond provided by the agent). Residual loss is related to the monetary equivalent of loss suffered by principle, because the agent’s decisions may be different to those that would maximize the principal’s welfare. In the same vein, Williamson (1988) points out that residual loss is the key cost that the principal would attempt to minimize. In order to reach this objective, the principal incurs monitoring costs and makes the agent incur bonding costs. Hence, the «irreducible agency costs are the minimum of these three costs» (Bowrin et al., 2006: 4).

According shareholder view, the board is a fundamental body also because it has the role of monitoring, controlling (Nordberg, 2011) and advising management (Ferreira, 2010).

Strongly related with agency problems and shareholder view is the board effectiveness.

The board is a central element of corporate governance mechanism and structure and its efficiency and performances could determine the success of monitoring and the operation of the firm (Aluchna, 2010). Similarly, an effective board independently control and monitor strategic challenges facing a company and assess managements’ performances in addressing them (Carpenter and Westphal, 2001). As a result of monitoring, the board should invert poor performance, overturn weak decisions and change under-performing managers. In the coming years how well boards can improve their own effectiveness is becoming increasingly important (Bird et al., 2004). Effectiveness board is considered by burgeon literature as the board’s ability to perform its direction and control roles effectively (Petrovic, 2008); hence, «to ensure company’s prosperity», «genuinely add value to the organisation», «move the company closer to its
goals» or «bring about corporate performance that satisfies the interests of shareholders/stakeholders» (Renton, 1999; Langevoort, 2001; Denis and McConnell, 2003; Sherwin, 2003; Nicholson and Kiel, 2004; Pye and Pettigrew, 2005; Aguilera, 2005).

Taken as a whole, a company to be successful must be well-governed. Indeed, an effective and well-functioning board of directors could have a significant impact on firm performance (Demb and Neubauer, 1992; Sonnerfeld, 2002; Kiel and Nicholson, 2005; Westphal and Bednar, 2005). The company’s board is like a heart and so it needs to be healthy, fit and cared for, in order company run effectively. General ill-health, lack of energy and weakness within the board need immediate attention (Solomon, 2011). Clear-cut strategy aligned to capabilities, effective implementation of strategy, free and accurate flow of information in and out of board, monitoring and controlling management could be some essential elements to the healthy operating of corporate body. Within the context of the numerous corporate governance mechanisms, the board is considered as the best solution to the problematic aspects of a particular set of manager-shareholder interactions (Baysinger and Butler, 1985). Hence, the «key aspect of corporate governance is the board of directors» (Dunn and Sainty, 2009:408; Zahra and Pierce, 1989). Figure 3.1 shows the key role of the board within the company and depicts relations among directors.

Figure 3.1 *The board of directors*

![Diagram of the board of directors](source: our elaboration)
3.3 Why restrictive approach?

Traditionally, corporate governance international studies focus on restrictive approach or shareholder view or agency theory, paying particular attention on resolving the conflict between corporate management and shareholders (Jensen and Meckling, 1976; Fama, 1980; Fama and Jensen, 1983; Eisenhardt, 1989). The board of directors is like a platform where management and shareholders’ interests are mitigated. Therefore, it becomes a liaison between top management and capital providers, through which it is possible to balance different expectations, face challenges, solve shareholders conflicts – for instance - for electing executives. This business paradigm has been dominating corporate governance research from many years; board directors interest have risen from 1776 when Adam Smith, the first economist addressing boards of directors, deem: «The directors of [joint stock] companies, however, being the managers rather of other people’s money than of their own, it cannot well be expected, that they should watch over it with the same anxious vigilance [as owners]. Negligence and profusion, therefore, must always prevail, more of less, in the management of the affairs of such a company» (p. 700).

One hundred and fifty-six years later, Berle and Means (1932) had a similar view: «Control will tend to be in the hands of those who select the proxy committee and by whom, the election of directors for ensuing period will be made. Since the proxy committee is appointed by the existing management, the latter can virtually dictate their own successors» (p. 87).

Both points of view highlight the concerns of separation of ownership and control in large company. In particular, the former reckons that controls carried out by owners rather than by others (a person or group of persons) are more likely to be diluted than fulfilled. The latter considers Smith’s paradigm arguing that as an increasingly number of different subjects hold firm’s ownership; the checks to limit the use of power tend to disappear (McCraw, 1990). However, these positions are developed by Jensen and Meckling (1976) into the agency problem in governing the firm, pointing out the concern of ownership and control separation and the related agency costs.

It emerges desire to solve agency problems in order to foster the economic growth, create firm value, improve corporate performance. As a matter of fact, if any subjects (e.g. agent, principle and board) fulfil their own duties and responsibilities in a coordinated and synergistic way, solving the aforementioned problems - also through an effective role of the board - the company could achieve high performance, face
challenges effectively. In this regard, the board of directors is seen as the solution to agency problems in company through its role as internal formal link between shareholders and management (Fama and Jensen, 1983; Choi, Park and Yoo, 2005; Filatotchev et al., 2005; Certo et al., 2006; Dalton and Dalton, 2006).

Firstly, we consider restrictive approach because it starts from board of directors studying which constitute both the beating heart and the brain of the company without which it could be impossible for a firm survive. Indeed, like a heart and a brain, the board of directors is an essential part of the company without which firm could not exist and it grows within company in order to drive and help it, and to minimize agency costs, and solve with other internal subjects (top management, shareholders, committees, control mechanisms) every kind of challenges. The board is also accountable for providing the checks and balances essentials for the orderly conduct of the business.

Furthermore, boards are deeply regulated by state corporation laws and the stock exchange governance codes. Legislator is keeping on producing hard laws (State regulations) and soft laws (codes of Corporate Governance) concerning board of directors requirements, principles, policy, etc. For instance, each year Italian Stock Exchange issues annual reports, release and other documents about the compliance with the Italian Corporate Governance Code, changes on some part of the latter (e.g. committees). In general terms, the worldwide reforms and initiatives tend to introduce improvement of monitoring standards, also due to the globalization process based on increased capital mobility (Aras and Crowther, 2010).

In this perspective, it follows that the board of directors is the primary and deeply topic studied by academics, legislators, stock exchange.

So we seek to understand, first of all, board of directors functioning because it is the starting point for any company. It is a crucial corporate element from which we cannot disregard, also because «boards are a market solution to an organizational design problem, an endogenously determined institution that helps to ameliorate the agency problems that plague any large organization» (Hermalin and Weisbach, 2003: 9). In this vein, the board acts as the shareholders first line of defence against self-serving and

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16 We could imagine that agent (top management), principles (shareholders) and the board of directors are like a boat and they have to steer it (the noun governance has a Latin origin and stands for “steering” or “holding the rudder”). The boat sails on a troubled waters which are the dynamic and uncertain business environmental (market, competitors, legislator; hence, stakeholders). In order to survive and reach the harbour (strategic purposes, economic performance aims), the boat must be as solid and efficient as possible. This can be happened if top executives, shareholders and the board cooperate and interact together to the same goals.
incompetent managers (Weisbach, 1988). Hence, the board is a mechanism to deal with interest conflicts may arise between managers and shareholders by bringing their different interests into agreement and harmony in order to foster firm efficiency and to maintain high levels of shareholder wealth (Johnson et al., 1993; Herermalin and Weisbach, 2003).

3.4 Board of Directors features, Codes of Corporate Governance, Theories and Empirical Research

Corporate governance represents an important topic within management studies especially in these last years, characterized by the global financial crisis. Indeed, corporate governance research has been undertaken as a reaction to different factors, such as globalization, industrial colossus bankruptcy (Enron, WorldCom, Parmalat, Alitalia, etc.) and the economic-financial global crisis. The events that affected companies on one hand disclosed firm government and management deficit and on the other hand fostered sharp criticism of boards of directors and managerial conduct (Deakin, 2011). In this complex, dynamic and uncertain context (Zattoni, 2006) the need to adopt common standards for companies arises in order to secure and control management. These standards or principles are contained within codes of conduct or codes of corporate governance which have been gradually adopted by several countries; they describe strategies and behaviour to adopt in the event of management problems (Arrigo, 2006) and they represent the so called best practice of all companies. Hence, these codes could represent a reinforcement of market efficiency, a strategic tool for management and board of directors (Di Betta and Amenta, 2004), a reference standard for shareholders and management as well as stakeholders. It is important to stress that corporate frauds and scandals have provoked a strong reform process, introducing accountability and transparency.

Gregory and Simmelkjaer (2002: 11) define corporate governance code as «systematically arranged set of principles, standards, best practices and/or recommendation [that is] predatory in nature [, is] neither legally nor contractually binding [, relates] to the international governance of corporations (covering topics such as the treatment of shareholders, the organization and practices of (supervisory) boards and corporate governance transparencies) and [is] issued by a collective body». It follows this definition deals with both hard law (default laws) and soft laws (principles, best practices, recommendations) which are fundamental when carrying out cross-country studies.
Codes deal with essential corporate governance issues, e.g. fairness to all shareholders, accountability by directors and managers, transparency in financial and non-financial reporting, board composition and structure, the responsibility for stakeholders’ interests, and for complying with the law (Gregory and Simmelkjaer, 2002; Coombes and Chiu-Yin Wong, 2004; Zattoni and Cuomo, 2008). As Zattoni and Cuomo (2008: 4) “The core of codes of good governance lies in the recommendations on the board of directors”. Indeed, governance codes recommend the board of directors to play an active and independent role in controlling the behaviour of top management. Researchers and practitioners (Lorsch and MacIver, 1989; Demb and Neubauer, 1992; Charan, 1998; Conger et al., 2001) suggest an increasing number of non-executive and independent directors; the splitting of Chairman and CEO roles; the creation of board committees (nomination, remuneration and the audit committee), composed especially by independent directors; the development of an evaluation procedure for the board; intra-annual and annual reports. These practices are considered a key success factors in order to minimize governance problems and to increase board and firm performance. Accordingly, effective board performance is perceived through the execution of a set of roles (Gopinath et al., 1994; Johnson et al., 1996; Levrau and Van Den Berghe, 2007a; Lipton and Lorsch, 1992; Maassen, 1999, Nicholson and Kiel, 2004b; Zahra and Pierce, 1989). Thereby, it is important to understand the board’s contribution in terms of its ability in performing the roles expected of it (Namoga, 2011).

3.4.1 Main Board of Directors features

The study of corporate governance international theories, codes of best practice (Gregory, T. Simmelkjaer, 2002) and empirical research has been conducted referring to:

- board of directors functions,
- board of directors composition,
- board of directors dimension,
- Chairperson and CEO roles,
- audit, nomination and remuneration committees,
- corporate governance disclosure.
These variables have been chosen like the study subject, because they are ‘possible factors determining’ good governance (Pozzoli, 1996; Allegrini and Bianchi Martini, 2006), i.e. critical success factors affecting company success, thus they «will have a predominant impact on the achievement of enterprise objectives» (Morden, 2007). We should note that this issue focuses especially on board of directors, Committees and disclosure features, because they are institutions that have arisen «endogenously in response to agency problems inherent in governing any organization» (Hermalin and Weisbach, 2003: 20). Each key success factor has been explained according to international codes, different theories existing in literature and empirical research (Finkelstein and Hambrick, 1996).

In particular, boards functions are considered a key factor determining good governance, because the board of directors is responsible for decision-making process (Huse, 2005) within which strategic purposes aimed at maximisation of shareholders’ value and economic growth, are defined. It follows that it is fundamental to understand ex ante boards tasks, since the board task performance is related to the board’s ability to execute its service, monitoring and networking tasks (Johnson et al., 1996; Stiles and Taylor, 2001; Zahra and Pearce, 1989; Zona and Zattoni, 2007). Furthermore, the board composition and its leadership structure (i.e. dimension, CEO duality or Non-CEO duality, audit, remuneration and nomination committees) are key factors determining good governance and board effectiveness (Petrovic, 2009). Board effectiveness refers to the ability of the board to perform its direction and control roles effectively (Petrovic, 2009), to «ensure the company’s prosperity» (Renton, 1999), to «genuinely add value to the organization» (Langevoort, 2001) and to «move the company closer to its goals» (Denis and Mcconnell, 2003). It follows that how a director contributes to board effectiveness, as well as the criteria of board effectiveness constitute basic and fundamental element (or key success factors) to understand and analyse.

Finally, corporate governance disclosure is the core of information processing for stakeholders and financial, economic communities. In particular, it represents a means by which firms reveal their technological expertise, managerial competences and processes transparency. Furthermore, corporate disclosure can be considered as proxy for the care managers devote to accountability and compliance (Di Betta and Amenta, 2004). Corporate governance disclosure belong to the so-called corporate information system and in particular to the informatics one, i.e. the latter is the set of processes and resources used for the data processing, and it concerns the production of information by means of electronic processing (Castellano, 2003). It follows that disclosure represents a key factor determining good governance, since it make transparent all procedures and
mechanisms of corporate governance, inducing the firm to be more efficient and accountable.

First of all, we compare US, UK, German, Japanese and Italian codes of best practice with reference to variables afore explained. Secondly, we study how international corporate governance theories could explain codes of best practice variables, in order to understand which theory is adopted by the codes. Finally, we seek to understand if Codes of Corporate Governance, International Theories, and Empirical research are interlinked.

3.4.2 American, English, German, Japanese and Italian Codes of Best Practice and Board of Directors features

Before starting to analyse the relationship between Codes of Corporate Governance, International theories and empirical research with respect to the board of directors features, it is fundamental to compare the international Codes, especially American, English, German, Japanese and Italians one. We consider those codes because – as discussed in chapter 2 - two archetypes of corporate governance models exist (i.e. Anglo-Saxon and German-Japanese) and the Italian one is in the middle between them. Table 3.1 summarises comparison between US, UK, German, Japanese and Italian codes.
Table 3.1 Codes of Corporate Governance

<table>
<thead>
<tr>
<th>Variables</th>
<th>USA</th>
<th>UK</th>
<th>D</th>
<th>J</th>
<th>IT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functions</td>
<td>No obligation</td>
<td>Strategic aims: Set the company’s strategic aims; Responsible for long-term success of company</td>
<td>Strategic aims: Coordinate the enterprise’s strategic approach; Create value for shareholders and stakeholders</td>
<td>Strategic aim: Responsible for supervising management; Prevent conflict owners-management; Create value for shareholders</td>
<td>Strategic aims: Strategic approach; Strategic aims: Create value for shareholder’s over medium-long term</td>
</tr>
<tr>
<td>Composition</td>
<td>ID: Majority of ID</td>
<td>Balance ED-NED: ID: at least 50% or 2 ID (SMEs)</td>
<td>No recommend.</td>
<td>ID: at least 50% or 1/3 or 1</td>
<td>Adequate numbers</td>
</tr>
<tr>
<td></td>
<td>NED: No obligation</td>
<td>No recommend.</td>
<td>No recommend.</td>
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</tr>
<tr>
<td></td>
<td>ED: No obligation</td>
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<tr>
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<td>Reduced</td>
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<tr>
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<td>Yes</td>
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</tbody>
</table>

Source: our elaboration

Codes of best practice clarify that the two main functions of board of directors are to identify and manage strategic aims directed at achieving, sticking to, and improvement the economic growth of the firm. In particular, German, Japanese, UK and 2006 Italian Codes explicitly mention that the function of the board is to coordinate the company and boards is a strategic guide for firms. Furthermore, 2011 Italian, German and Japanese codes stress the importance of shareholders within company, namely they maintain that boards should redeem the conflict between ownership and management by monitoring the latter and should create value for shareholders over a medium-long term. The fact that the board is responsible for the long-term success of the company is pointed out in UK code, as well. In addition, only the German code recommends that

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17 ID stands for Independent Directors; NED stands for No Executive Directors; ED stands for Executive Directors.
the board of directors takes into account not only the interests of shareholders, but also those of employees and other stakeholders. On the other, the American code is the only one that does not mention anything related to this issue.

As far as board of directors composition is concerned, all codes of conducts, a part from the German one, recommend a balance between executive and non executive directors, with special focus on independent members. The appropriate combination of those kinds of directors is fundamental because they may provide different expertise, skills, and knowledge to the firm. More in detail, American code imposes the highest number of independents, i.e. the majority of board members must be independent; whereas Japanese code recommends in some case the presence of only one independent. UK code recommends that 50% or two (in SMEs) board members should be independent. 2011 Italian code update the issue regarding independent directors; indeed 2006 Italian code foresaw an adequate number of outside, whereas the new version is more precise, establishing that for companies belonging to FTSE-Mib index, at least one third of the Board of Directors members shall be made up of independent directors. Anyway independent directors shall not be less than two. It is noteworthy to point out that no code provides or suggests number of executive and non-executive directors, because they especially focus on the number of independent, their roles, and the independence criteria. Only American, UK and Italian codes describe independents’ role and provide independence criteria to discern between an independent and non-independent directors. In particular, independents could increase the quality of board oversight and could decrease the potential conflict between shareholders and managers. UK code explicit that the board and in particular independents directors are like a platform (Roe, 1994) between ownership and management, indeed it states that independents «should be available to shareholders if they are concerns which contact through the normal channel of chairman, chief executive or other executives» (UK Code of Corporate Governance, 2012: 10). Furthermore, US, UK and Italian codes seek to tighten the notion of “independent directors”, by providing some standards which are valid for all companies; however codes state that each American firm must and each UK and Italian firm should define their own criteria in order to restrict the notion of “independence”. All codes state that company should consider not only the material relationship between directors and firm (such as, commercial, industrial, banking, consulting relations) but also other kinds of connections (e.g. a director who is affiliated with or employed or whose immediate family member is affiliated with or employed). Thus, each board should determine whether the director is independent also in relation to individual circumstances which are likely to effect.
Regarding the board of directors size, only two codes of best practice (UK and Italian ones) agree on the reduced number of members who make up the board of directors. No codes provide exact numbers within board, but they prefer a reduced number of directors, as reported within UK code «board should not be so large as to be unwieldy». Moreover, board size is a relevant issue to identify the number of independents, the size of committees. Indeed, according to Italian Code, the board should evaluate at least annually the performance of the Board of Directors and its committees, as well as their size and composition, taking into account the professional competence, experience.

As regards the Chairman and the CEO roles, all codes of corporate governance (except from American and German ones; which do not specify anything) recommend that the roles of chairman and CEO should be split with the division of responsibility between them; this is the case of CEO non-duality. It is recommended because it could enhance characteristics of impartiality and balance that are requested from the chairman of the Board of Directors. On the other hand, CEO duality implies that the same individual serves both as Chairman and as CEO. However, whether exceptionally board decides to CEO duality the board should take precautions which are different in UK and in Italy. The former recommends that in case of CEO duality the board consults major shareholders in advance and provide reasons to owners of the appointment of CEO acting as Chairman as well. On the other hand, Italy does not recommend any consult, but the Italian code foresees «adequate counterbalances» (Italian Code of Corporate Governance: 14, 2006/2011). In particular, it recommends that the designation of a lead independent director in the case the chairman and the CEO overlap; this circumstance which takes up no negative characteristics, needs, however, the creation of adequate counterweights.

As far as audit, remuneration and nomination committees are concerned, all codes of best practice, except for German ones which does not recommend these bodies, have introduced them in order to solve interest conflicts between management and shareholders. In particular, all codes discipline the audit committee, only USA and UK establish a minimum of three members, just in case of English small firms two members are required. All codes, a part of Italian one, recommend that all members should be independents; whereas Italian code establishes that members could be non-executives but the majority should be independent. It is noteworthy that 2006 Italian Code foresees the Audit Committee, whereas 2011 version substitutes the former with the control and risk committee. All codes agree that all members or only the Chairman of the committee (for German code) or at least one should have recent and relevant financial and accounting experience. Furthermore, only German code recommends that the supervisory board set up an Audit Committee, in other cases the board of directors
should establish it. As regarding the *remuneration (or compensation) committee*, all codes establish that body. In particular, according to the UK code, the remuneration committee should consult the chairman and/or the CEO about their proposals regarding the remuneration of other directors. In addition, board should establish a remuneration committee of at least three, or in the case of small firm two, independent directors. Unlike the UK and the US code states that all remuneration committee must be independent. On the other hand, Italian code is less restrictive than US code, because the former states that the remuneration committee is made up of independent, but it may be made up of non executive directors, the majority of which to be independent; in this case, the chairman of the committee is selected among the independent directors. It noteworthy to point out that German code does not explicitly foresee the set up of remuneration committee, however it seem plausible to assume that the supervisory board can form that committee in order to propose «the compensation of the members» of the Board to shareholders (German Code of Corporate Governance, 2012: 10). It is interesting to notice that Japanese code does not establish neither committee size nor its composition, however it recommends that all committees should prevent the conflicts of interests between the firm and management.

As far as *nomination committee* is concerned, all codes recommend establishing it. More in detail, only German code states that the supervisory board, instead of the board, should for a nomination committee composed exclusively of shareholders representatives. Only the American code establishes that all members must be independents, whereas UK and Italian one recommends a majority of members should be independent directors. Japanese code does not mention anything about nomination committee size and composition.

Finally, it seems plausible to assume that as regarding committees the most restrictive disciplines are established by US and UK codes.

As regards *corporate governance disclosure*, besides annual financial statement, all codes recommend detailed reports preparation regarding:

- general information about company and corporate governance activities sufficient to evaluate the operational conditions of business, e.g. name, education, roles of directors, chairman, stock information programmes, etc. (according to all codes)

- how the board operates (especially US, UK, Italian and German codes)
- audit, remuneration and compensation committee activities and their rules (according to US, UK and Italian codes); in particular German code requires a report dealing with audit processes within the firm.

- Transparency rules about requirements for independence (according to US, UK and Italian codes)

- Quantitative information on financial conditions and operating results (only Japanese code)

It seems that US and UK codes present a detailed discipline about disclosure than Japanese code which contains little information.

Finally, it is plausible to state that US and UK rules are more detailed and more focused on independence of directors and committees members. In addition, US, UK and Japanese codes consider shareholders as one of the pillars of the company, indeed they address some rules in favour of their protection. Italy is in the middle between US-UK and Japanese for two main reasons. First, rules are not as detailed as those British and American, however they are not so slack as Japanese ones. Second, Italy has started to address shareholders’ issue in 2011; before that year ownership was not so fundamental, indeed before 2011 board should not create value only for shareholders but for all stakeholders. On the other hand, German code seems to be *a latere*. It means that it maintains its own features without being too influenced from other countries. Such as, one distinctive feature is that the Supervisory board set up committees and the nomination committee is exclusively composed by shareholders representatives. Another striking characteristic is the high interest on stakeholders. Indeed, the board of directors should take into account interests of stakeholders, employees, as well as shareholders. Finally, corporate governance codes are becoming increasingly similar since companies trade on various stock exchanges (Nanka-Bruce, 2009).

### 3.4.3 International Theories, Empirical Research and Board of Directors features

After describing how codes discipline corporate governance issues or key success factors, we compare International theories with both codes and empirical research. It is noteworthy to point out that the first part of chapter 5 focuses on empirical research review of some variables aforementioned. Thus, the purpose of this paragraph is to sum up research regarding board of directors issues, because more accurate and detailed analysis of extent literature is made up in chapter 5.
Codes of best practice clarify that the two main functions of board of directors are identifying and managing strategic aims directed at achieving, sticking to, and improving the firm economic growth. In particular, all codes stress the importance to create value for shareholders. At present, the American code is the only one that does not mention anything related to this issue. According to different corporate governance theories, it is possible to distinguish the functions of boards of directors. Roles and responsibilities change according to perspectives and theories adopted; yet, board of directors relevance within the firm appears to be a shared principle (Finkelstein and Hambrick, 1996). In particular, as regards Agency theory, the board of directors should control, monitor and prevent manager power abuses from occurring to the detriment of shareholders; directors should be able to minimize agency costs, too (Bernanke and Gertler, 1989). In this regard, the board is the solution to agency problems in firms through their role as the gatekeeper of shareholders’ interests and as the internal formal link between ownership and managers (Certo et al., 2006; Choi et al., 2005; Duncan, 2005; Fama and Jensen, 1983; Filatotchev et al., 2005). According to Stakeholders theory, boards should facilitate, coordinate and address all the people who have interests in a company. Thus, directors should be able to help, foster and promote relationship with all stakeholders; the former manage and direct strategic choices directed towards shareholders and stakeholders expectations maximization (Quagli, 2004). In this regard, the board is considered as a means through which the company is able to take into account the interests of all stakeholders who can affect (or affected by) the activities of the firm (Freeman, 1994; Freeman et al., 2004; Donaldson and Preston, 1995).

Regarding Resource Dependence theory, board of directors have the role of managing and regulating resources or inputs that can be found in the environment. Besides forming relationships with other stakeholders the board of directors should seek out and combine resources obtained outwith the network creation, in order to increase innovative development, fundamental for the firm to be competitive (Mizruchi, 1996). Furthermore, the board is seen as the means to manage the company’s dependence on external suppliers of resources and to enhance its power in the market (Kosnik, 1987; Pettigrew, 1992). Finally, Stewardship theory views managers as trustworthy and good stewards of the firm who are not prone to opportunistic behaviour (Donaldson and Davis, 1991; Finkelstein and D’Aveni, 1994). It follows that boards should play an incentive role towards management and act as a facilitator in the relationship between manager and shareholders, with the aim of raising trustee and commitment relationship within the firm (Barach, 1984). It is interesting to note that there are two cross functions which link the four theories above described, in particular strategic and performance optimization role (Tiscini and Di Donato, 2005). The former consists of guiding the decision-making process, and of formulating strategic decisions by defining aims and policies that firm must pursue. As regards the latter, Tricker (1984) suggests «the duty
of boards is not only to protect wealth, but to create it», so directors should maximize economic performance. Most empirical research shows that directors’ effectiveness (i.e. the ability to carry out their own duties and tasks) is coupled with board’s independence from management (Hermalin and Weisbach, 2003). However, there is not a great deal of quantitative studies relating to board roles. Some state that directors over the 50/60-year age bracket notably perform a control function, because entry onto Board of Directors represents a moment of achievement recognition in career management, it is common for those who have served as CEO or other apical positions to remain on the Board as members (Barontini and Caprio, 2006). Johnson et al. (1996) argue that directors’ roles are classified as control, service and dependence resource, and «the relative volume of research devoted to the different board roles reflects the predominance of the control role». In this case, codes seem to adopt agency theory, as they states that they maintain that the board should redeem the conflict between shareholders and management, and enhance owner’s wealth.

As far as board of directors composition is concerned, all codes of conducts recommend a balance between executive and non executive directors, with special focus on independent members. However, German code does not provide any recommendations about neither the board composition nor the number of independents within the board. Furthermore, no codes suggest any particular number of executives and non-executive non-independent directors. Agency theory (Mallin, 2004) argues that the latter is one of the main subjects within a company, because they should control and monitor managers’ conduct in order to prevent opportunist behaviour fraud and misdemeanour. Independent directors should be able to minimize agency costs, (i.e. moral hazard (Froeb and McCann, 2009), and adverse selection (Sundaram and Banks, 1993) within the relationship/conflict between shareholders and managers, thanks to their extraneous position within firm management and their competence acquired in other job contexts. According to Stakeholder and Resource Dependence theories (Pfeffer, 1972), the key role carried out in firm management is that of non-executive directors, considered as a link between company and resources as well as stakeholders in the environment. Hence, outside directors, thanks to their own skills externally acquired and know-how network with others firms, have more chances to find resources and combine inputs obtained outwith the network creation, in order to increase the innovative development. Stewardship theory (Solomon and Solomon, 2004) emphasises the role carried out by executive directors or inside directors, they are considered the maximum company experts, trustees, who identify more with the company, and who contribute towards the firms’ economic growth. Empirical research does not agree about the best board of directors composition; indeed, optimal board composition cannot exist (Baysinger and Hoskisson, 1990; Hermalin, 1994; Kole, 1997), because several variables (e.g.
shareholders presence on board) influence each firm (Weisbach, 1988). Some researchers (De Andres et al., 2005; and Adjaoud and Zeghal, 2007) find that there is no correlation, neither positive nor negative, between board composition and performance. Yet, Bausinger and Butler (1985); Klein (1998); Bhagat and Black (2002) claim that a positive connection exists between outside directors and performance; moreover Beasley (1996) shows that no-fraud firms have boards with higher percentage of independents than fraud firms. In contrast, Agrawal and Knober (1996) and Coles et al. (2001) find a negative correlation between outside director and performance (measured with Tobin’s Q and Market Value Added). We notice that all international rules focuses on independent directors or a balance between inside and outside directors, as Agency theory claims; whereas empirical studies do not seem to have reached a shared conclusion, even if the majority stream reckons that higher number of independents could positively impact firm performance.

Regarding board of directors dimension, two codes of best practice (i.e. UK and Italian codes) agree on the reduced number of members who make up the board of directors. No codes provide exact numbers within board, but drawing conclusions from codes, however some of them recommend a reduced number of directors, as reported within English code «board should not be so large as to be unwieldy». Not all theories completely agree with codes. Agency and Stewardship theories argue that board directors’ number within board must not be numerous for different reasons, as shareholders must control managers’ behaviour, due to increased scope for malfeasance and empire-building. Agency theory reckons that it would be better to have a flexible, ‘streamline’ and reduced board (Jensen, 1994). Stewardship theory is of the same opinion as the agency theory, but for different reasons. According to the former, the board must be limited in size, because all directors are considered as trustees who are committed to firm values, and who are intrinsically motivated, for these reasons the number must be limited. In contrast Stakeholder and Resource Dependence theories argue that boards should be large, because directors should interact with environment, i.e. with stakeholders (Zahra and Pearce, 1989). Therefore, if boards fulfil all stakeholders’ interests, good governance quality could increase and governance improvement would improve firm value, resulting in greater stakeholders’ fulfilment. On the other hand (Resource Dependence theory), company survival depends on the acquisition of external resources (Burt, 1983), so it must minimize inputs supply uncertainty, by creating relationship with other firms, suppliers. For this reason, if the number of directors is high, interactions and relations with environment are boosted, therefore economic performance (and firm value) grows and finally company survives. Empirical research aims to investigate relationship between board of directors dimension and performance in order to understand if the former affects its efficacy.
There are two main findings: a) negative and b) positive correlation between board dimension and firm performance, even if the most predominant is the first one: inverse relation exists between performance (ROE, ROA, and Tobin’s Q) and directors number (Conyon and Peck, 1998; Eisenberg et al., 1998; Yermack, 1996). Jensen (1993) claims that maximum number of board members should be seven or eight, and above this limit directors can no longer operate efficiently and CEO could take over. Other scholars Airoldi and Forestieri (1998) argue that maximum number must be nine. Few results about positive correlation between dimension and performance have emerged, for instance Daily and Dalton (1992) and Bhagat and Black (2002) find a weak relation in a sample of SMEs. It is interesting to highlight that size and composition of boards are often correlated with a board’s independence (Hermalin and Weisbach, 2003). Thus, it would seem that two codes afore mentioned (UK and Italian ones) have followed Agency or Stewardship theories, as they recommend a small number of directors. In addition, several empirical studies would confirm that this as the right way to maximize performances.

As regards Chairman and CEO roles, all codes of corporate governance (except from American and German ones; which do not specify anything) recommend that the roles of chairman and CEO should be split with the division of responsibility between them; this is the case of CEO non-duality. CEO duality on the other hand implies that the same individual serves both as Chairman and as CEO. Different views about CEO duality and non-duality efficacy exist. In general terms, the relationship between the CEO and the board is one of the basic elements of corporate governance, because it involves two primary players who acts for the firm’s quest for success (Jensen and Meckling, 1976; Finkelstein and D’Aveni, 1994; Zajac and Westphal, 1996; McKee, 2005). According to Agency Theory, duality «signals the absence of separation of decision management and decision control [...] the organization suffers in the competition for survivals» (Fama and Jensen, 1983). In addition, authors argue that it is fundamental to have a split leadership, because duality would lead to reduction of management monitoring possibility and CEO would be able to pursue personal interests to the detriment of shareholders more easily. CEOs tend to exercise influence on the board selection process by fostering personal friend and other individuals with whom they have close social ties (Finkelstein and Hambrick, 1998; Westphal, 1999). It follows that the board independence from CEO or management is often compromised (Spencer, 1983; Fredrickson et al., 1988; Walsh and Seward, 1990), prejudicing objectively monitor behaviour in firms (Westphal, 1999; Wu, 2008). In contrast with Agency Theory, other approaches assume that CEO non-duality could have significant and positive implications for firm performance and corporate governance. First of all, according to Stakeholder Theory (Alexander et al., 1993) CEO duality is fundamental
because non-duality «dilutes Chairman and CEO power to provide effective leadership of the company by increasing the probability that actions and expectations of management and the board are at odds with each other» (Baliga et al., 1996). In order to foster relationship with all stakeholders, Anderson and Anthony (1986) maintain that only one apical subject is better, as companies should interface with many stakeholders and the latter need only one ‘public spokesman’ to prevent or reduce confusion. Resource Dependence theory agrees that duality is to be preferred, because it calls for the appointment, of a so-called Lead Independent Director (in addition to the CEO and the Chairperson) who serves as an independent chief among all board members and therefore helps ensure board relationships with environment and others boards. Thus, CEO duality can encourage a collaborative decision-making environment which fosters director involvement in strategic activities (Westphal, 1999). Finally, Stewardship theory reckons that combined leadership structure could be considered as the best one in order to manage company, as power concentration in the hands of one individual (i.e. CEO duality) could increase commitment and motivation towards economic purposes achievement. Indeed, stewardship theory does not necessarily regard the separation of ownership and control as a problem but as a positive development which could potentially work to effectively manage the firm (Learmount, 2002). It follows that this theory encourages the concentration of power and authority in the hands of management rather than the board, i.e. it favours the CEO duality as the best way to enhance the firm performance. The last three theories suggest that duality would lead to performance maximization, because it would permit a clear-cut leadership for aims of strategy formulation and implementation. Several empirical studies have been carried out on CEO duality or non-duality efficacy on firm performance. They led to different and opposing results that can be summed up as follows, a) CEO duality has positive effect on performance (ROI, ROE) (Boyd, 1995); b) CEO non duality has a positive relation with performance (ROI, Tobin’s Q) (Rechner and Dalton, 1991); c) neither CEO duality nor non duality have important effects on performance (ROE, Market Value Added, ROA, ROI) (Baliga et al., 1996). In fact, most findings have proclivity for positive correlation between CEO non duality and firm performance. It is interesting to notice that Dalton et al. (1998) find that Joint Stock Companies with few independent directors and characterized by CEO non-duality are coupled positively to bankruptcy. Thus, it would seem that empirical research confirms what codes of best practice recommend (with the exception of America and German) and what agency theory claims.

As far as audit, remuneration and nomination committees are concerned, all codes of best practice have introduced them in order to solve interest conflicts among management, board of directors, and shareholders. All corporate governance international theories, except for the stewardship one, agree that committees are
fundamental for company. *Agency theory* maintains that committees are able to provide efficient and effective answers on strategic decisions, as they are support organs to company government. According to *Stakeholder and Resource Dependence theories*, committees should be composed of outside directors or independent ones, because they are able to manage the unforeseen and deal with uncertainty in resources acquisition. These bodies are emblematic tools of network and connections among directors, and stakeholders, because, for instance, nomination and remuneration committees should find human and financial resources outwith the company, i.e. in the environment. *Stewardship theory* does not accept committees either for controlling (audit committee), or manpower and financial inputs (nomination and remuneration committees), composed of independent directors, because it focuses on executives who are ‘stewards’, who are intrinsically motivated, committed to firm, and – as French and Raven (1959) sustain – who are ‘more likely to rely on personal sources of power-expert and referent’. *Empirical research* is more fecund on audit committees rather than nomination and remuneration ones, probably because the former has firm control function a role which is particularly tough and could be structured in several systems and sub-systems (Anthony, 1988). Most empirical results highlight that audit committees are ‘cornerstones of corporate governance’ (Gramling et al., 2004) and an audit committee composed of external and independent directors results in better transparency and accountability for company (Beasley. and Salter, 2001). Research about nomination and remuneration committees is rather limited whilst ‘they are considered to have heightened importance with regard to effective board functioning’ (Brown et al., 2009). Some studies reveal that those bodies are not appointed, especially in those firms where there is only one majority shareholder who is also manager. Two main opposite findings emerge, on one hand positive effects on firm performances emerge from remuneration and nomination committees foundation (Ruigrok et al., 2006); on the other hand research reveals an excessive opportunity cost of settings up those bodies (McKnight and Weir, 2009). It emerges that empirical studies confirm audit committees efficacy as claimed by codes (apart from German principles that seem to support stewardship approach). Quantitative research does not seem so convinced about benefit and usefulness of nomination and remuneration committees.

As regards *corporate governance disclosure*, all codes (with the exception of American ones which do not specify anything) recommend document preparation. All theories also agree on the efficacy of corporate governance disclosure for different reasons depending on approaches adopted; however, common assumption is that disclosure has important and clear-cut economic consequences (Garay and Gonzalez, 2008). According to *Agency Theory*, the report is fundamental, because a better quality of economic-financial disclosure, reducing probability of information asymmetry between
management and shareholders, could lead to a decrease in risk capital. Asymmetry minimization could limit company risk as perceived by shareholders; therefore offer advantageous economic resources (Casino and Vegan, 2009). Stakeholder theory, symmetrically to Agency approach, maintains that corporate disclosure is necessary, because it can favour a decrease in information asymmetry among all stakeholders, it reduces risk and credit cost of capital and it increases securities traded liquidity. Indeed, poor quality disclosure would create more uncertainty among investors which would lead them to offer their own financial resources at high costs, due to uncertainty at high level and lack of clear-cut disclosure. Therefore, clear cut disclosure containing corporate governance principles could be an important tool in order to align all stakeholders’ interests that are likely to be divergent. Resource Dependence theory agrees with Agency and Stakeholder approaches regarding the connection between high quality disclosure and low resource costs. What changes is the definition of resources; agency theory defines resources as financial capital (equity and risk capital, respectively), whereas stakeholder theory considers resources in an extensive approach: financial, productive, manufacturing, human resources. The Board is considered an administrative body linking the corporation with its environment and «a boundary spanner that could help the corporation to acquire important resources from the environment, and thus reduce the corporation’s dependence on external stakeholders or protect the corporation from external threats» (Huse, 2005). According to Stewardship theory, as managers are inclined to see themselves as stewards, or trustees, disclosure does not contain substantial faults. The lack of information asymmetry has positive effects on disclosure, therefore on performance (because stakeholders wish to invest money) and on corporate governance, as management will not manipulate firm data and strategic information. La Porta et al. (2002) reckon that governance disclosure has ‘positive effects of good corporate governance practices on firm valuation are explained by higher investor confidence’. It determines high level firm value. The risk is that disclosure represents only a sterile formal document, with so-called ‘watered down contents’, i.e. firm could omit substantial corporate aspects, as they intend only to pay lip service to formal prevision (Enriques, 2003). In order to test disclosure efficacy on corporate governance and firm performance and to minimize the risk above mentioned, scholars (Brown and Caylor, 2006) have created some ‘governance indices’ (Gompers et al., 2003) which are composed of disclosure variables, i.e. qualitative and technical information deduced by codes of conduct. The assumption is that codes represent best practice depository at international level and respect to principles contained therein lead to better firm accountability, responsibility, and compliance (Melis, 2004). Generally speaking research shows that high quality disclosure coupled with a good firm management lead to higher performance (Shleifer and Vishney, 1997). We could accept that codes regulate corporate governance disclosure because they aim to prevent
information asymmetry and minimize conflict between shareholders and managers. Empirical studies support the importance of revealing all corporate features in order to increase accountability, market and stakeholders’ consensus, and thus improved performance.

Table 3.2 contains findings obtained by the comparison among international theories of corporate governance, American, English, German, Japanese and Italian codes of best practice and empirical research.
### Table 3.2 Synoptic Framework of corporate governance theories, international codes of best practice and empirical research

<table>
<thead>
<tr>
<th>Variables</th>
<th>International Theories</th>
<th>Codes of Corporate Governance</th>
<th>Empirical Research</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agency Th.</td>
<td>Stakeholder Th.</td>
<td>Resource Dependence Th.</td>
</tr>
<tr>
<td>Functions</td>
<td>Control, monitor</td>
<td>Facilitate, coordinate</td>
<td>Managing and regulating resources</td>
</tr>
<tr>
<td>Cross Functions</td>
<td>Guiding decision-making process, formulating strategic decision</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composition</td>
<td>ID(^{18})</td>
<td>NED</td>
<td>NED</td>
</tr>
<tr>
<td>Dimension</td>
<td>Reduced</td>
<td>Numerous</td>
<td>Numerous</td>
</tr>
<tr>
<td>Chairperson&amp;CEO</td>
<td>CEO non duality</td>
<td>CEO duality</td>
<td>CEO duality</td>
</tr>
<tr>
<td>Audit</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Remuneration</td>
<td>Yes</td>
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<td>Yes</td>
</tr>
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<td>Nomination</td>
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</tr>
<tr>
<td>Disclosure</td>
<td>Yes</td>
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</tr>
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</table>

\(^{18}\) ID stands for Independent Directors; NED stands for No Executive Directors; ED stands for Executive Directors.
3.5 Codes, Theories and Board features: convergence or divergence?

International business scandals, firms bankruptcy and financial frauds have fostered law updating process in the field of corporate governance; the need to create a system or a set of principles, duties and recommendations to apply to all companies operating in a given environment. The function of corporate governance codes is to outline organizational rules consistent with both corporate structure of each System-Country and, especially economic growth goals to be worth over time. It is necessary to study and analyse codes, as they represent a fundamental corporate governance tool in which company duties, rules and principles toward all stakeholders (e.g. minority and majority shareholders, employees, institutional investors, etc.) are identified. Code adoption, not only formal, could lead a company to become more transparent and accountable through a clear and visible disclosure on its governance model. It is essential that firms should assimilate those governance values, principles (e.g. responsibility, accountability, transparency, etc.) required by financial market, as this could allow company to exploit some international competitive challenges or to obtain new financial capital (both equity and credit capital) especially in the current financial globalization context.

From a comparative analysis of codes it emerges that a convergence process towards similar governance approaches at international level is underway. It should be noted, however, that each country – in spite of the convergence or standardization processes towards a single standard of rules – is affected by their social, historical, and economic background. As a matter of fact Shleifer and Vishny (1997) and Levin (1997) argue that «the legal and political environments are critical influences on the nature of corporate governance and thereby on corporate governance in every country». For instance, German code recommends a Supervisory Board composed by employees, too; this is in support of stakeholder view rather than shareholder one. Furthermore, it recommends that the board of directors create value for all stakeholders and not only for shareholders. Italian code emphasises on the so-called ‘traditional model’ (existing only in Italy), leaving discretion to companies to adopt the Anglo-Saxon corporate structure (one-tier model) or German one (two-tier model).

Thus, from a comparative study among international theories (i.e. Agency, Stakeholder, Resource Dependence and Stewardship approaches) and corporate governance codes it would emerge that variables studied and contained in the codes would be better explained and regulated under Agency approach. Codes and agency theories argue that it would be better to have a reduced board of directors, a greater number of independent directors, CEO non-duality, the committees institution, and corporate governance disclosure. In addition, all codes of best practice regulate roles, functions and principles of Independent directors who are believed to be more effective monitors of company
management (Johnson et al., 1996), and they have arisen «in response to the agency problems inherent in governing any organization» (Finkelstein and Hambrick, 1996). In fact, codes lead towards Agency approach. However, especially German code seems to adopt the stakeholder theory even if, as afore mentioned, there are some references to shareholder view.

Finally, we can state that convergence process is ongoing. Globalization of relationships in stock financial market has led to a frequent review of national laws and regulations, according to paths consistent with culture, traditions and internal market conditions to each country, but at the same time they are projected to international best practices application. Clearly, according to contingency approach the lack of consensus may result from the chosen theoretical perspective. Indeed, financial globalization, the integration of financial markets and the high influence of Anglo-Saxon institutional investors affect corporate governance issues of large companies in any country (Zattoni and Cuomo, 2008). However, a corporate governance practice is different across institutional environments (Crouch and Streek, 1997; Weimer and Pape, 1999; Hall and Soskice, 2001; Aguilera and Jackson, 2003; Gordon and Roe, 2004) and practice is influenced by differences in culture, corporate ownership patterns, and legal origin (Zattoni and Cuomo, 2008).

Empirical research on corporate governance is widespread with the exception of studies concerning board of directors functions. It is interesting to note that literature intends to understand whether the solutions proposed by codes are indeed designed to maximize performance. Studies on corporate governance are very prolific and aim to demonstrate if standards are able to affect government efficiency and therefore economic growth achievement.

3.6 Summary, Conclusions and Research Implications

3.6.1 Summary

We discuss about the importance of board of directors within corporate governance. The board is a crucial element of corporate governance structure. It protects shareholders’ company needs; it becomes a fundamental platform of monitoring of executives, success policy, of reviewing strategic aims, of ensuring integrity for shareholders and stakeholder interests guarantee disclosure transparency. The market complexity, globalization, financial and economic environment turbulence make the role of board of directors more and more complicated.
In the same vein, we saw as restrictive approach or shareholder view or agency theory is particularly widespread in research. We noticed that the agency intuition (Berle and Means, 1932) of more 80 years ago is still valid, studied and tested in literature. That theoretical perspective starts from board of directors which constitute both the beating heart and the brain of the company without which it could be impossible for a firm to survive.

Furthermore, we focused on the relationship between boards characteristics and international codes of corporate governance. In particular, we studied American, English, German, Japanese and Italians codes, because two archetypes of corporate governance models exist (i.e. Anglo-Saxon and German-Japanese) and the Italian one is in the middle between them. This means that –as discussed in chapter 2- Italian case has some features in common with those two models and others that differ. We found out that US and UK codes present a detailed set of principles about independent directors, committees and corporate governance disclosure than the others. However, corporate governance codes are becoming increasingly similar since companies trade on various stock exchanges and financial globalization.

Moreover, we analysed board features compared with those codes, corporate governance theories and empirical research. It emerged that codes are in line with agency approach. So, from a comparative study among international theories and corporate governance codes it would emerge that variables studied and contained in the codes would be better explained and regulated under Agency approach. However, especially German code seems to adopt the stakeholder theory even if there are some references to shareholder view.

We can argue that convergence process exists and is ongoing. Financial globalization, the integration of financial markets and the high influence of Anglo-Saxon institutional investors affect corporate governance issues of large companies in any country. However, corporate governance practices differ from a country to other, because it is influence by cultural, social, economic, legal background of the country.

Finally, the board is a crucial element of corporate governance structure. It protects shareholders’ needs and also company needs; it becomes a fundamental platform of monitoring of executives, success policy, of reviewing strategic aims, of ensuring integrity for shareholders and stakeholder interests guarantee disclosure transparency. The market complexity, globalization, financial and economic environment turbulence make the role of board of directors more and more complicated. It follows that it could be a fascinating research field for Academic, Professionals, and Business Practitioners and will remain the corporate governance core. The need for an osmotic process
between literature and legislation emerges; if all studies carried out by Academics, Professionals, Legislator could converge and a continuous exchange of information and results could take place in order to develop shared principles and rules system everyone could benefit

3.6.2 Conclusions and Research Implications

Two main conclusions emerge from this chapter. First, even though convergence process is ongoing, it is noteworthy that Italy differs on a number of features than other countries, i.e. law (Consiglio Nazionale dei Dottori Commercialisti et al., 2006); corporate governance regimes (Melis, 2000; Hopt and Levens, 2004; Pendleton, 2005); recent corporate governance reforms (Enriques and Volpin, 2007); and age of each nation’s professional internal audit (Selim et al., 2009). Legislative and regulatory changes have fostered the ability of shareholders to engage in activist efforts (Daily, Dalton, and Cannella Jr, 2003). These changes, from a shareholder approach, are crucial to the effectiveness of corporate governance system, because the concentrated ownership effectiveness may depend on the effectiveness of the legal system that protects shareholders’ rights (Shleifer and Vishny, 1997).

Second, literature has been dominated by the assumptions of agency theory, and these continue to have a deep influence on governance reform and practice (Roberts et al., 2005). So agency approach has an important and profound influence on the process of governance reform. However, as we show in previous section empirical research which adopted agency approach does not always confirm principles efficacy contained in codes of corporate governance. However, we notice that most studies would seem to confirm what codes recommend, e.g. all codes suggest CEO non-duality would be better for several reasons above explained and at the same time most empirical research recommend that CEO and Chairman roles should be carried out by two different people. Furthermore, Kakabadse and Kakabadse (2004) maintain that «whilst the ambiguity of findings can be partly explained by the different research methodologies applied including sample size and the number of variables under investigation», other effects often ignored in quantitative studies such as a corporate culture, ethical norms of behaviour and the levels of honesty expected in business, also determined this broad spectrum of conclusions.

Hence, agency theory is one of the best theory that could explain Italian firms and we decide to adopt it on our research for some reasons. First, as discussed at chapter 2, Italian economic context is characterized by family business (Bracci and Vagnoni,
2011) and companies where there is not a clear separation between ownership and control. Furthermore, Italy is characterized by poor capital market orientation and we cannot find the agency leitmotiv “market for corporate control”. However, agency problems arising from the conflict between owners and managers is shifted towards the relations among different kinds of shareholders (Melis, 2000). In particular, the conflict arises from majority or blockholders and minority shareholders. The former have full voting rights; whereas the latter does not have «any significant role in corporate governance, they are not guaranteed enough by the intervention of courts, because the device of fiduciary duties is largely unavailable and derivative suits are ineffective» (Melis, 2000: 352). Moreover, agency theory can better explain family business which is widespread in Italy. Indeed, some agency problems may arise, such as three different agency conflict can occur, i.e. family owner versus external manager19, family owner versus external shareholder20 and family owner versus family manager21 (Kraiezy, 2013). Second, agency approach is consistent with prior international major studies on corporate governance and board of directors (Rechner and Dalton, 1991; Johnson et al., 1993; Yermack, 1996; Hermalin and Weisbach, 2003). In the same vein, due to the convergence process towards Anglo-Saxon model which adopt agency theory, it appears plausible to assume that agency theory could better explain Italian firms. Third, in competitive sectors (such as listed companies, i.e. our population of analysis) one of the fundamental functions of the board of directors is the behaviour control of management. Indeed, according to agency theory, the funding risk is that managers pursue short-term strategies sacrificing long-term ones; for this reason it is needful the strategic role of the board. Moreover, if the environment is volatile and uncertain (such as financial market where listed companies play), the board of directors must be involved in the review of strategic plans and changes in strategy. Those board roles are

19 Family firms can employ external managers, due to the lack of capable and competent family members or family members cannot come to an agreement. Thus, the conflict between the principal (family owner) and the agent (external manager) is similar to non-family companies. The family, like a concentrate owner, has the power to appoint external managers and control fundamental decisions. It may occur that external managers use firm resources for their own purposes at the expenses of owners’ interests (Ang et al., 2000).

20 Agency conflict can also arise between a dominant shareholder and minority shareholders (Morck and Yeung, 2003). In this regard, information asymmetries and a conflict of interests could exist between the dominant shareholder and minorities. In particular, family business groups adopt a pyramidal structure in order to separate ownership from control. Thus, family directly controls a firm, which in turn controls other firms, and each of which control other companies and so on. It results that finally one family controls a large number of firms. In this case, minorities is used only to provide capital and do not receive a majority of votes. The family can misappropriate minorities’ wealth by self-dealing and tunneling (Johnson et al., 2000).

21 In this case, family members are both the owners and the managers of their firm. So, agency costs may decrease, because there is no separation between ownership and control; indeed, principal and agent act in the interests of the family. However, according to agency theory, some problems may arise; such as they include free-riding by family-members, the entrenchment of ineffective family managers, and a biased parental perception of a child’s performance (Schulze et al., 2001; Schulze et al., 2003).
better explained by agency theory (Zattoni et al., 2010). Thus, it is plausible to assume that financial market and listed companies (which are the focus of the present research) are better understood under agency theory lens.

On the other hand, stakeholder and resources dependence theories seem to explain only part of the complexity of Italian firms. In other words, they focus their attention on other topics without concentrating particularly on board of directors and its mechanisms. Thus, in order to better understand firm complexity, it appears fundamental deeply understand corporate governance in narrow terms (i.e. board, directors, leadership, etc.) and then enlarge the focus of analysis by considering stakeholders, resources, etc. Moreover, it appears important to adopt agency theory, because it can better explain the Italian economic context where firms with concentrated ownership and family-owned play. Indeed, the most important conflict is between majority and minority shareholders, where the former can expropriate benefits from the later (Giovannini, 2010).

It follows that some research implications arise from this chapter. In particular, at this point we can formulate some research hypotheses which we develop and test in chapter 5.

More in detail, given the literature review, under the agency approach lens, and consistently with codes of corporate governance, we hypothesize that:

- **Firm performance exhibits a negative association with board size.**
- **Firm performance exhibits a positive association with the proportion of independent directors on the board.**
- **Firm performance exhibits a negative association under leadership structures that combine the roles of the CEO and Board President.**
- **Firm performance increases in presence of Audit Committee.**
Chapter 4 – Methodology

Contents: 4.1 Introduction; 4.2 Research process, 4.2.1 Models, Concepts and Research Philosophy, 4.2.2 Theory, 4.2.3 Hypotheses, Methodology and Method, 4.2.4 Overview of philosophical and methodological assumptions; 4.3 Research phases; 4.4 Research Theoretical Approach; 4.5 Implementing the present research, 4.5.1 Population Sampling, 4.5.2 Data acquisition, 4.5.3 Data Management, 4.5.3.1 Panel data, 4.5.3.2 Panel data Models; 4.6 Summary and Research Implications
4.1 Introduction

Any research in business or management, link the present study, needs that the methodology used should «be clearly spelt out, perhaps in a chapter of its own» (Remenyi, 1998: 30; Remenyi, 1990), in this way results of the research are convincing. For this reason, the chapter 4 deals with methodology, methods, and philosophical assumptions.

Methodology deals with «the choices we make about cases to study, methods of data gathering, form of data analysis etc. in planning and executing a research study» (Silverman, 2005: 99). So methodology can be defined as «an operational framework within which the facts are placed so that their meaning may be more clearly exposed» (Jonsson, 2007: 135; Leedy, 1989: 135). Methodology is therefore closely related to a distinct paradigm and will be expressed in terms of guidelines for an acceptable research practice (Sarantakos, 2005).

The aim of this chapter is to identify and define the methodology design used in the present research. In the following section, we describe research process within philosophical assumptions. In section 4.3, the research operationalization is presented. In section 4.4 we describe the research theoretical approach adopted in the present research; whereas in section 4.5 we discuss about population sampling, data acquisition and data management of the present research. Finally, in the last section summary and research implications are presented.

4.2 Research process

The reason for carrying out research is frequently motivated by a natural human curiosity to add knowledge and better understanding of the world we live in and the mechanisms underlying. The starting point for research is the philosophical assumptions which guide the process of social investigation. They lead the research methodology and the research method choice, providing the overall context in which the research is carried out.

Several proposals have been made in order to explain the research process. Silverman (2005) introduces seven steps of analysis which are closely linked together and a step higher level determines a lower one. Furthermore, it is fundamental that each research start from research philosophy, because it provides fundamental assumptions about the way the researcher interprets reality. Figure 4.1 shows the research process and the relation with research philosophy.
RESEARCH PHILOSOPHY

- **Models**: an overall framework for looking at reality
- **Concepts**: ideas deriving from a particular model
- **Theories**: set of concepts to define and explain some phenomenon
- **Hypotheses**: tested in research, unlike theories
- **Methodology**: how one will go about studying any phenomena
- **Methods**: specific research techniques
- **Findings**: results of research

Source: our elaboration on Silverman (2005: 98)

### 4.2.1 Models, Concepts and Research Philosophy

Models provide an overall framework for looking at the reality (Silverman, 2005). The word *model* used by Silverman has the same meaning of *paradigm* (Kuhn, 1962) which explains methodology in general terms. In particular, paradigms are a set of ideas and methods which make up a world view and a way of doing science; so as their vital nature they represent the framework (shared set of assumptions) for normal science. On the other hand, concepts are «specified ideas deriving from a particular model» (Silverman, 2005: 98). Before describing other steps of the research process is useful to dwell on *research philosophy*. It is expected any research should start from that, since it contains fundamental assumptions about the way the researchers views and interprets the world (Saundares et al., 2007). In other words, philosophical assumptions guides the research process and may be explicit or implicit according to the way the researcher sees the world and the way it is to be investigated. They govern the research methodology and the choice of research method, providing the overall context in which the research is carried out.

In particular, models explain what reality is like and basic elements it contains (*ontology*) and what is the status and nature of knowledge (*epistemology*) (Silverman,
2005). Indeed, a paradigm represents an intellectual tradition with its own set of ontological and epistemological prescriptions for understanding the scientific world. So, research philosophy provides philosophical assumptions which are conventionally divided into two main heading: ontology and epistemology. Ontology is concerned with the philosophical nature of reality, as Burrell and Morgan (1979: 1) states, «whether the reality to be investigated is external to the individual – imposing itself on individual consciousness from without – or the product of individual consciousness». It explains whether reality is explicit in terms of being “out there” in the world, or otherwise implicit, as the creation of mind. On the other hand, epistemology is concerned with the assumptions about the way of inquiring into the nature of the world and communicating research results to others (Rosenau, 1992, Taylor, 2010). Thus, epistemology concerns the study of the nature of knowledge, that is «How is it possible, if it is, for us to gain knowledge of the world?» (Hughes and Sharrock, 1997: 5)

Ontological and epistemological assumptions underpin two main theoretical approaches to social science research: *positivism* and *subjectivism perspectives*22 (Hussey and Hussey, 1997; Patton, 1990). These paradigms represent the end of a continuum in social science research which provides the links between ontological and epistemological assumptions. They describes a continuum’s polar opposite with varying philosophical assumptions aligned with them (Holden and Lynch, 2004).

*Positivism* prefers «working with an observable social reality and that the end product of such research can be law-like generalizations similar to those produced by the physical and natural scientists» (Remenyi et al., 1998 cited in Saunders et al., 2003: 83). This paradigm states that an apprehensible reality exists and it is guided by immutable natural laws and mechanisms (Guba and Lincoln, 1994).

According to positivists, reality is considered to be external, ‘out there’, objective, governed by natural and unchangeable laws and something which can be perceived through senses and realisable through experience. In this perspective, social research is considered as a tool for studying social events and learning about them so that general causal laws can be discovered (Sarantakos, 2005: 36-38).

*Subjectivism*, on the other hand, states that reality is subjective or dependent on observers since they are part of what is being observed (Vico, 1668-1744; Dilthey, 1833-1911; Weber, 1864-1920; Patton, 1990). This approach seeks to understand the point of view from the subjects’ perspective and deems that researcher studies

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22 Other authors labels *positivism* and *subjectivism* in different way, e.g. Easterby-Smith et al. (1991) describe them as *positivism* and *phenomenology*; Hughes and Sharrock (1997) entitle them as *positivism* and *interpretative alternative.*
meaningful social action, and not just the observable or external behaviour of people to get the complexity of reality (Saunders et al., 2003). Unlike positivism, subjectivism believe that reality is not “out there” but perceived by «the minds of people, internally experienced and socially constructed through interaction and interpreted through the actors, and is based on the definition people attach to it» (Sarantakos, 2005:36). In the same furrow, Williams and May (1996: 60) reckon that «the world is interpreted through the mind [...] we cannot know the ‘true’ nature of the object world, separate from our perception of it». Furthermore, knowledge is considered as cumulative, or as increasing over time. Abdel-khalik and Ajinkya (1979) point out that good research should provide the casual relationship between independent and dependent variables and minimize the random error.

However, there may be several perspectives that lay between the two extreme philosophical positions. For instance, Morgan and Smircich (1980) identify six major philosophical perspectives, included positivism and subjectivism. Alternatively, Ryan et al. (2002) describes the realistic approach or dialectical materialism which arises in the middle of the above mentioned perspective\(^\text{23}\). Moreover, critical perspective attempts to mediate between objectivism and subjectivism\(^\text{24}\) (Sarantakos, 2005; Burell and Morgan, 1979).

### 4.2.2 Theory

Theories define and explain different phenomena by arranging sets of concepts (Silverman, 2005). They are fundamental in order to understand, develop and eventually modify phenomena. In general terms, theory provides answer the question Why (Kaplan, 1964; Merton, 1968; Jonsson, 2007) or is regarded as solution to problems (Popper, 1994). As Strauss and Corbin (1994: 278) point out «Theory consists of plausible relationships produced among concepts and sets of concept». Thus, theories provide a framework for understanding phenomena and the impulsion, driving force for research.

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\(^{23}\) Actually, the realistic approach criticizes positivism for «failing to deal with the meanings of real people and their capacity to feel and think» and subjectivism «for being too subjective and relativist» (Neuman, 1997: 74).

\(^{24}\) In particular, critical theory stands somewhere between positivism and subjectivism. Those theorists suggest to «get below the surface, to expose real relations, to disclose myths and illusions, to show [...] how the world should be, how to achieve social goals and, in general, how to change the world» (Sarantakos, 1988:39). Reality is an «overtly political philosophy, in that it stresses the need to follow the logic of one’s philosophical and sociological analysis with practical action of a radical kind» (Burrell and Morgan, 1979)
Theories perception can be divided into two groups (Jonsson, 2007). They can be considered as ideas, explaining the why of phenomenon, using the approach of empiricism (Llewelyn, 2003). On the other hand, theories can be seen as grand theories, formulated in the world of the ideas rather than practice through the rationalism approach (McKelvey, 2006; Van de Ven and Johnson, 2006).

Two different approaches that consider theories in different way exist, i.e. deductive and inductive approach. In other words, according to deductive research (Weber, 1947), theories are deductively tested from existing knowledge, through developing hypothesized relations and proposed outcomes for study (Jonsson, 2007). Otherwise, inductive approach is characterizes on the fact that there is relations between empirical reality, which allows the development of a valid and testable theory (Glaser and Strauss, 1967). More in detail, the deductive approach tends to be preferred more by positivist researchers than subjectivists (Ticehurst and Veal 1999). The deductive process involves the theory development to test the hypothesis. Otherwise, the inductive approach is used when data is collected first, and a theory is developed as a result of the data analysis. It follows that deductive research approach uses a “top-down” approach, i.e. hypothesis arises from theory which hypothesis is tested through observation; finally researcher confirms or rejects hypothesis. Thus, conclusion follows logically from premises. On the other hand, inductive research approach works the other way, moving from specific observations to broader generalizations and theory, for this reason this approach is also informally called “bottom up” (Aqil Burney and Mahmood, 2006).

Thus, in general terms, theory is the basis of research. It is dynamic, and not static, so it means it is expected to change and improve (Black, 1999). Theories usually have been developed through inductive approach, i.e. a process through which observations are made, data are collected, general patterns are defined and relationships are pointed out. Moreover, the point is how to interpret phenomena through theories? The answer may be through deduction, i.e. «one can explain, or deduce an explanation, by matching a specific situation to a more general one – in other word, the circumstances fit the theory» (Black, 1999: 8-9). In addition, Hempel (1966) maintains that generalizations are so infrequent and it is possible to give explanations only in terms of trends, i.e. probabilistic explanations. Gilbert (1993) has good intuition about theory construction through induction, and how research, using both quantitative and qualitative approach, confirms theory by deduction which seeks to explain instances. However, theories as well as are confirmed by research and are limited by the nature of the research support.
4.2.3 Hypotheses, Methodology and Method

Unlike theories, hypotheses are tested in research (Silverman, 2005), thus they are testable proposition. Methodology could be defined as «a general approach to studying research topics» (Silverman, 2005: 109. In the same furrow, Easterby-Smith et al. (2002: 31) state that it regards a «combination of techniques used to enquire into specific situations». Thus, methodology is expressed in terms of guidelines for an acceptable research practice (Sarantakos, 2005). Clearly the two assumptions aforementioned (i.e. ontological and epistemological one) have direct implication on methodological nature; to quote Burrell and Morgan (1979: 2) «different ontologies, epistemologies [...] are likely to incline social scientists towards different methodologies». The possible range of methodologies is large; however the most widespread are the quantitative methodology and the qualitative methodology. The former is most closely related to a positivistic philosophy resulting that reality is objective and human being is determined by their social world exactly as the scientific world is determined by fix laws. It follows that social scientists should employ the same methods as researchers in normal science. Quantitative research is closely related to empiricism (Leach, 1990) and positivism (Duffy, 1985)\(^{25}\). Such research approach is a formal, systematic and objective process in which numerical data findings. It explains tests and examines cause and effect relationship (Burns and Grove, 1987) through a deductive approach of knowledge attainment (Duffy, 1985). So, theories are deductively tested by quantitative methodologies from existing knowledge through hypothesized relationships and proposed results (Cormack, 1991). Finally, in this perspective, the researcher has a detached, objective view in order to understand the fact (Duffy, 1985).

On the other hand, the qualitative methodology refers to subjectivist philosophy according to which reality is caused by human action and interpreted by human beings. Weber (1978) clarifies that «verification of subjective interpretation by comparison with the concrete course of events is, as in the case of all hypotheses, indispensable». Benoliel (1985) states «modes of systematic enquiry concerned with understanding human beings and the nature of their transactions with themselves and with their understandings». In particular, qualitative research is driven by certain perspectives and ideas dealing with the subject to be investigated (Cormack, 1991). So, a qualitative methodology is considered like a vehicle for studying the empirical world from the point of view of the subject (Duffy, 1987). Such methodology is also defined as humanistic and idealistic approach (Leach, 1990) or as phenomenology (Duffy, 1985). Moreover, qualitative research differs from quantitative one as the former develops theory inductively. If follows that there is no quantification of the findings which are

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\(^{25}\) It comes from the scientific method used in the physical sciences (Cormack, 1991).
instead describes in the language used during the research process (Leach, 1990). It is noteworthy that two methodologies are not always mutually exclusive. Indeed, Jick (1979) advises the use of multiple methods, i.e. a strategy referred to as *triangulation* which is defined by Denzin (1978:291) as «*the combination of methodologies in the study of the same phenomenon*». However, Easterby-Smith *et al.* (2008) recommend to be cautious in the use of mixed methods especially when they present «*very distinct ontologies*». The use of mixed methodologies and methods could be satisfactory «*where the overall direction and significance of the two sources [of data] are fairly similar*», but they caution that «*there are difficulties when different kinds of data say contradictory things about the same phenomena*» (Easterby-Smith *et al.*, 2008:71).

As far as *method* is concerned, it could be defined an «*individual techniques for data collection, analysis etc.*» (Easterby-Smith *et al.*, 2002: 31). The data collected in *quantitative research* are hard and numerical which are characterized by objective and systematic measurement. Moreover, the reliability and validity of data may be improved by probability testing and correlations established by, for instance, regression modelling. On the other hand, as far as *qualitative* methods are concerned, the researcher is an observer, interpreter and who elicits meaning from situations and that meaning is not expressed in numbers but in words. Accordingly, Miles and Huberman (1994: 6) state that «*the researcher’s role is to gain a “holistic” (systemic, encompassing, integrated) overview of the context under study: its logic, its arrangements, its explicit and implicit rules*». In addition, he «*attempts to capture data on the perceptions of local actors “from the inside” through a process of deep attentiveness, of empathetic understanding […] and of suspending or “bracketing” preconceptions about the topics under discussion*» (1994:6). It is noteworthy that both methods demand complex sampling procedures and need to respect criteria of the data collection. Both research approaches need a sample or population to be indentified; in case of sample, this must be representative of a larger population of people or objects. In particular, *quantitative* approach requires random selection of the sample from the population and the random assignment of the sample to the different study groups (Duffy, 1985). Statistical sampling is based on the study sample to develop general conclusions which could be generalized to the population. On the other hand, *qualitative* approach usually studies small and selective sample, due to its in-depth nature of studies and analysis of data required (Cormack, 1991).

Although quantitative and qualitative methods are different, it is fundamental to point out that an approach superior to the other does not exist; both are characterized by strengths and weakness. It follows that there is no one best method of developing knowledge. In addition, it is important to recognize and understand the tension and
debate among researchers about quantitative and qualitative approaches in order to create distinctive and relevant modes of inquiry in research (Charoenruk, 2012).

After discussing the various phases of research process, it may be useful to consider the design of research. According to Saunders et al., 2007, three main kinds of research design may exist, i.e. exploratory, descriptive and explanatory studies. The former is the discovery of insights and ideas, and it could be conducted by search in literature, by interviewing some people who are expert in that topic or conducting focus group. Descriptive research deals with «an accurate profile of persons, events or situations» (Robson, 2002: 59). Explanatory studies, instead, is typically concerned with establishing the relationship between variables, for instance between dependent and independent ones (Jonsson, 2007; Saunders et al., 2007).

4.2.4 Overview of philosophical and methodological assumptions

Before discussing philosophy assumptions, methodology, method and theory on the basis of the present research, it may be useful to depict an overview of two major philosophical approaches, i.e. subjectivism and objectivism, analysed according to their respective assumptions. According to Hussey and Hussey (1997), bbjectivism may have various synonyms:

- Quantitative
- Positivistic
- Scientific
- Experimentalist
- Traditionalist
- Functionalist (Holden and Lynch, 2004)

On the other hand, subjectivism may be defined as:

- Qualitative
- Phenomenological
- Humanistic
- Interpretivist

Figure 4.2 displays main features of subjectivism and objectivism discussed on the previous paragraphs.
The first assumption, i.e. ontology, concerns with the nature of reality, the researcher’s view of reality. According to objectivist, the reality is a concrete structure, whereas subjectivist approach states that reality is a projection of human imagination. The second assumption, i.e. epistemology, relates to the study of the nature of knowledge. Objectivist approach believes that it is necessary to construct a positivist science; on the other hand, subjectivism believes that it is necessary to obtain phenomenological insights and revelations. The third assumption, regarding human nature, concerns whether or not the researcher perceives man as the controlled or as the controller. In particular, objectivism believes that man is a responder; it means that the relationship between man and society is deterministic, and so man is born into a world with casual laws which explain the patterns to man behaviour. The observer is independent of what is being observed. Whereas according to the subjectivism, man is pure spirit, consciousness being; the observer interacts with subject observed. The fourth assumption, i.e. methodology, which is the tool-kit of each researcher, regards the ways available to social researcher to investigate phenomena. The methodology used by objectivism is the so-called nomothetic which is «basing research upon systematic protocol and technique. It is epitomised in the approach and methods employed in the natural science [...]». It is preoccupied with the construction of scientific tests and the use of quantitative techniques for the analysis of data. Surveys, questionnaires, personality tests and standardized research instruments of all kinds are prominent among the tools which compromise nomothetic methodology» (Burrell and Morgan, 1979: 6-7). On the other hand, methodology adopted by subjectivism is called
ideographic which is «based on the view that one can only understand the social world by obtaining first-hand knowledge of the subject investigation. It thus places considerable stress upon getting close to one’s subject and [...] emphasizes the analysis of the subjective accounts which one generates by “getting inside” situations» (Burrell and Morgan, 1979: 6). It follows that idiographic approach is a “subjective” approach to methodology which adopt qualitative data gathering techniques (method) (Burrell and Morgan, 1979; Evered and Louis, 1981). On the other hand, nomothetic approach uses quantitative methods and techniques (Luthans and Davis, 1982).

The following table (Table 4.1) seeks to sum up what we discuss on the previous paragraphs.
### Table 4.1 Research implication of the subjectivism and objectivism

<table>
<thead>
<tr>
<th>Implications</th>
<th>Subjectivism</th>
<th>Positivism</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Choice of what to study</strong></td>
<td>The choice of what to study and how to study is driven by researcher’s interests, beliefs, values and skills</td>
<td>The choice of what to study and how to study is driven by objective criteria rather than by human beliefs</td>
</tr>
<tr>
<td><strong>Generalisation</strong></td>
<td>Particular or specialized findings that is less generalizable</td>
<td>The aim of generalisation is to lead to prediction, explanation and understanding</td>
</tr>
<tr>
<td><strong>Operationalisation</strong></td>
<td>Small samples investigated in depth or over time and emerging categories are indentified during research process</td>
<td>Concepts must be operationalised in order to quantify and measure facts</td>
</tr>
<tr>
<td><strong>Causality</strong></td>
<td>The aim of social science is to seek to understand what is happening. There is no cause and effect</td>
<td>The aim of social science is to identify casual explanation and fundamental laws/mechanisms which could explain regularities</td>
</tr>
<tr>
<td><strong>Deductive/Inductive</strong></td>
<td>Developing ideas through induction from evidence</td>
<td>Research foresees a process of hypothesising fundamental laws and then deducing what types of observations will demonstrate the truth of falsity of hypotheses</td>
</tr>
<tr>
<td><strong>Research language</strong></td>
<td>Informal, personal voice, use of accepted qualitative words</td>
<td>Formal, impersonal voice, use of accepted quantitative words.</td>
</tr>
<tr>
<td><strong>Final report</strong></td>
<td>Narrative report with contextual description and direct quotations from research participants</td>
<td>Statistical report with correlations, comparisons of statistical significance of findings</td>
</tr>
</tbody>
</table>


26 This term originally derives from physics to refer to the operations by which a concept is measured (Bridgman, 1927).
4.3 Research phases

According to Remenyi (1998), it is possible to identify eight specific research phases:

1. Literature review
2. Formalising research questions
3. Establishing methodology
4. Collecting evidence
5. Analysing evidence
6. Developing conclusions
7. Understanding limitations of research
8. Producing guidelines or recommendation

In particular, our research is drawn into such phases.

1. Literature review

The literature review is «a material part of the research process» (Remenyi, 1998: 66), and it takes significant amount of time to be developed and expended on the research degree. The review of the literature helps to identify the theoretical or conceptual framework of research. The theoretical framework informs the study organization and allows for results to be generalized to other settings beyond those of research (Polit and Beck, 2009). Theoretical frameworks identify variables, and propose relationships to be studied and tested (Polit and Beck, 2004). So, the literature review should show a suitable problem to study and give the researchers some idea of the research approaches, methods which have been used in this field (Creswell, 1994). It is relevant to highlight that the literature should not just accepted but should be critically evaluated.

In the present research, the literature review is based on critical analysis of the international contributions regarding corporate governance in general terms. Thus, we studied and compared, in a critical way, different definitions of corporate governance to understand the humus from which theories and models are developed. Then, international (Anglo-Saxon and German-Japanese) and Italian models of corporate governance are compared. After the analysis of the corporate governance theoretical models, the attention is focused on the relationship between those models and the international theories (agency, stakeholder, stewardship and resource dependence theory) to understand which theory is at the basis of models. There are no contributions that clarify the relationship between the atypical Italian model and the corporate governance theory; we tried to define what theory is on the base of the Italian model. It is relevant to notice that the choice of the corporate governance theory is fundamental to identify an empirical model to measure the relationship between the corporate governance and economic performance in Italian firms. Those results are
shown on chapter two. Furthermore, we investigated the relation among international literature about corporate governance (i.e. international theories of corporate governance), codes of best practice of Anglo-Saxon, German-Japanese and Italian listed companies and empirical research. In particular, we studied some ‘variables’ contained in codes of conduct which deal with key success factors of the board of directors. Those variables regard the board of directors that according to agency theory is one of the main tools for monitoring opportunistic behaviour of management on behalf of shareholders. Those findings are shown on chapter three. After that we analysed in particular the main important variables, based on agency theory, in order to build the econometric model. Those results are drawn on chapter four. Finally, we use a ”top-down approach”, i.e. we started studying corporate governance in general terms and finished analysing typical aspects of boards under the agency theory lens.

2) Formalising Research Question
As aforementioned, the literature should be critically studied and evaluated and not just accepted on face value. It is fundamental because it leads to the formulation of suitable research questions (Remenyi, 1998). Research questions should be focused on the subject area and specific in terms of the problem which researcher try to answer. In general, business and management researchers ask questions related to how and why (Remenyi, 1998). In particular, after critical analysis of literature about corporate governance and the board of directors and audit mechanisms, we formulated two research questions (see chapter one).

RQ 1) How can Board of Directors affect firm performance in Italian listed companies?

RQ 2) How can monitoring processes affect firm performance in Italian listed companies?

3) Establishing methodology
It is noteworthy to point out that the literature review should uncover a suitable methodology which has been applied to previous research, as well as suitable problem to be researched. It follows that researcher knows the range of methodologies, research strategies available and is familiar about their individual strengths and weakness (Remenyi, 1998).
Indeed, the topic to be researched and the specific research questions is one of the first drivers in the choice of methodology (Silverman, 2005). Moreover, the choice of research methodology is driven by some different factors. For instance, it may influenced by the issue of time and money which could be of critical importance, especially when there is little budget, as well as by previous research.

As afore discussed, the present research adopt a *quantitative methodology* grounded in the philosophy of positivism (Rudestam and Newton, 1992) which generates quantifiable data related to measurable and observable phenomena.

4) **Collecting evidence**

One of the most important aspects of research process is to answer the research questions and verify research hypotheses, by providing suitable evidence supported by proper arguments. As specified in the following paragraph, we collected data regarding Italian firms listed on STAR Segment (Italian Stock Exchange). Data collected regards board size, the number of independent, non-executive, executive directors, the CEO duality, the supervisory board size, the presence of Audit Committee and the Big Four. Such data has been acquired by the annual report of corporate governance. Moreover, we also collected data regarding financial and economic performance and accounting indices for all companies, in particular ROE and Tobin’s Q, logarithm natural of total asset, capital intensity, ROA, firm leverage. We used database\(^\text{27}\) called *Datastream* provided by Thomson Reuters.

5) **Analysing evidence**

Once evidence has been collected, it is necessary to analyse it (Remenyi, 1998). The analysis of evidence changes hugely. It depends on if quantitative or qualitative evidence has been acquired. The amount of quantitative analyses depends on the information technology facilities, e.g. the software available, and the mathematical sophistication of the researcher. Furthermore, interpretative analysis relies on a different skill set of researcher. Those skills regard the ability to conceptualise on the basis of the evidence available and the patterns arising from it (Remenyi, 1998).

\(^{27}\) The use of the database has the advantage of designing the structure of the business data in a unique way, then, avoiding redundancies and ensuring data integrity. Essentially all business processes refer to a single reporting structure which gathers the entire “corporate knowledge” (Castellano, 2003).
After defining research questions and hypotheses and collecting suitable data, we started analysing evidence applying quantitative approach. As discussed in the following section, we created an (unbalanced) panel data and tested our hypotheses by using OLS pooled, fixed-effects and random-effects models.

6) Developing conclusions

Drawing conclusions from the evidence can be the most creative part of research project (Remenyi, 1998). Conclusions should convince the reader that something of value has been added to knowledge. Indeed, conclusions should be carefully argued in such a way that they will convince the research community (Collins, 1994).

In our research after analysing data collected (i.e. descriptive statistics) and testing hypotheses, we find out some interest results which are discussed in detail in chapter five. One striking findings is that the overwhelming dominant agency approach is not totally verified in the Italian context.

7) Understanding limitations of research and 8) Producing guidelines or recommendation

Discovering research limitation in a key part of the development of the researcher and this self-discovery should be demonstrated within the research project. It may represent the «main opportunity the researcher has to reflect on his or her work and to be self-critical of the approach taken as wall of the findings produced. This is a critical part of a research degree, especially at the doctoral level» (Remenyi, 1998: 69)

It is relevant to recognize the limitation of research which, in our study, are depicted in chapter one. Moreover, in the last chapter we present some guidelines or suggestion for further research. In particular, after finding that agency theory could not totally apply on the Italian firms we suggest to adopt the so-called multiple agency theory which focuses not just on the relationship between agent and principle but also on the relations among multiple agents and principles. It is noteworthy to point out that according to Remenyi (1998) the conclusion may be to reject the theoretical approach from which the research has been developed. «The refutation of a conjecture is generally regarded as just as important a contribution to the body of knowledge as the confirmation of a conjecture» (Remenyi, 1998: 68).
4.4 Research Theoretical Approach

After discussing research process, research philosophy and assumptions in general terms, we describe the research theoretical approach adopted in the present research.

This research will adopt the *positivism approach* due to its relevance to this type of research and so *quantitative methodology* is used. Indeed, the quantitative research is grounded in the philosophy of positivism (Rudestam and Newton, 1992; Bryman and Bell, 2007; Sauders *et al.*, 2007) which generates quantifiable data related to measurable and observable phenomena. So the adopted approach deals with establishing the strength of the relationships between variables (independent and dependent ones) and applies statistics to test hypotheses (Neuman, 1997; Cavana *et al.*, 2001). It follows that we want to find common patterns that categorise population without focusing on specific features of individual firms (Bentz and Shapiro, 1998; Owtscharov, 2007). Consistent with Johnson and Harris (2002), we aggregate numbers into statistics to ease the interpretation of data results in depicting conclusions. Moreover, the deductive approach is preferred more by positivist researchers than subjectivist (Ticehurst and Veal 1999). The deductive research process, indeed, involves the development of a theory or hypothesis to test; whereas the inductive approach is adopted when data is collected first, and then a theory is developed as a result of the data analysis.

Positivism is related to scientific, experimental, quantitative and deductive frameworks where the researcher seeks specific quantifiable observations thus using statistics and experiments to test their hypotheses (Neuman 1997). Thus, this research uses a deductive approach. It is an explanatory study. In particular, quantitative methods – e.g. the analysis of financial data – are often used to determine corporate governance relation with firm performance in empirical studies.

As far as *theory* is concerned, « *empirical research must be fundamentally rooted in theory and it is in fact impossible to conduct such research without the researcher taking a specific theoretical standpoint*» (Remenyi, 1995:9). This research is based on *agency theory* which focuses on the relationship between principal and agent and the board of directors acting as monitoring “device”. In particular, we studied the board of directors under agency theory lens with regard to Italian listed companies. As explained in chapter three, we consider restrictive approach or agency theory because it starts from board of directors which constitute both the beating heart and the brain of the company, without which it could be impossible for a firm survive. Indeed, like a heart and a brain, the board of directors is an essential part of the company without which firm could not exist and it is growing or originating from within company in order to drive, help it, minimize agency costs, and solve with other internal subjects (top management,
shareholders, committees, control mechanisms) every kind of challenges. The board is also accountable for providing the checks and balances essentials for the orderly conduct of the business.

As regarding *quantitative method*, data are necessary to measure the board characteristics (size, composition, CEO duality), audit processes (Audit Committee, Big Four) and firm performance (ROE and Tobin’s Q) in listed companies. The methods used to obtain data are mainly two. First, listed companies disclose some information on their annual report or their annual Corporate Governance report. The latter which is the document analysed for each company of our population for the period 2005-2007 is available from the website of Italian Stock Exchange. Indeed, the companies studied (which are analysed on the following paragraph) have to publish annual corporate governance report, as well as financial statement. Hence, data related to board size, composition (i.e. the number of independent, executive and non-executive directors), CEO duality, the presence of Audit Committee and Big Four are available from corporate governance reports. However, some companies omitted to present and publish the necessary data; therefore we dismiss those firms from our analysis. Second, in order to obtain data related with performance (namely, ROE and Tobin’s Q), firm size (logarithm natural of total asset), capital intensity, ROA, firm leverage, we used database called *Datastream* provided by Thomson Reuters.

This research aims to examine the relationship between corporate governance mechanisms and firm performance in Italian listed companies. Consequently, the research employed a quantitative approach where relationships between corporate governance features and a set of dependent financial and non-financial variables on listed companies is tested using analysis of data. The main purpose of this method is to identify, test and measure the relationship between firm performance (measured by ROE and Tobin’s Q) and a set of explanatory variables, namely, board size, board composition, CEO duality, the presence of Audit Committee, and Big Four and a comprehensive set of control variables (i.e. natural logarithm of total asset, ROA, capital intensity, firm leverage, year of acceptance of Corporate Governance Code).

**4.5 Implementing the present research**

After describing philosophical framework of the present research, in the follow sub-paragraphs we discuss about population sampling, data acquisition and data management.
4.5.1 Population Sampling

In the present research we did not consider a sample of companies, but a population of listed firms. In particular, we focus our attention to Italian companies which belong to Italian Main Market (MTA) which is a regulated market for mid and large size companies subject to stringent requirements. Within the MTA market, the STAR segment is dedicated to mid cap companies that voluntarily comply with requirements of excellence in terms of liquidity, information transparency and high quality of corporate governance. Given the emphasis on liquidity, information transparency and corporate governance, we considered Italian companies listed on STAR segment which are 68. Since our research focus is Italian firms during the period 2005-2007, we eliminated all non-Italian companies, namely three (including two from Luxemburg and one from Switzerland). Moreover, consistent with Barnhart and Rosenstein (1998); Vafeas and Theodorou (1998); O’Connell and Cramer, 2010, we excluded all the eight financial companies, because they are different due to the special regulatory environment in which they operate. «Regulation masks efficiency differences across firms, potentially rendering governance mechanisms less important» (Vafeas and Theodorou, 1998: 391). We removed other two companies, because they started adopting corporate governance code from 2008, thus out of our studied period. Finally, one company did not publish any disclosure regarding corporate governance; hence we had to exclude it from our population. In the end, our population counts 54 Italian companies listed in the STAR segment. Figure 4.3 depicts different industrial sectors to which belong firms investigated.

![Figure 4.3 Firms population and industrial sectors](image-url)
We notice that the majority of the listed companies belong to Industrials; where only 2% of firms play into Health Care, Basic Materials and Telecommunications sectors. No company listed in STAR segment deals with Oil and Gas.

4.5.2 Data acquisition

As mentioned before, we acquired data through two different ways. Firstly, all companies listed in segment STAR have to publish the annual Corporate Governance report. It is possible to find in that document data regarding board size, number of independent, executives, non-executives directors, CEO duality, the supervisory board size, the presence of Audit Committee, and firm auditing (Big Four or non-Big Four). Secondly, in order to obtain financial and non-financial data we used the database called Datastream provided by Thomson Reuters and which is a financial and macroeconomic database covering equities, stock market indices, currencies, fixed income securities and key economic and financial indicators for 175 countries and 60 markets. All data collected refers over period 2005-2007, so before global financial crisis. Indeed, the population period was chosen because we did not want that financial crisis influences our data, especially firm performance data, since our purpose is to test and measure the relationship between corporate governance mechanisms and firm performance not during financial crisis.

4.5.3 Data Management

After collecting data, we manage it through a statistical software, namely STATA 10. To estimate the relationship between corporate governance mechanisms (board size, board composition, CEO duality, audit committee, Big Four) and firm performance, the thesis relies on panel data\textsuperscript{28}; that is a combination of cross-section and time series data. Like most panel data sets, the data set used in the present research is more orientated toward cross-section analyses than time series analyses. In other words, there are a quite large number of cross-sectional units and only a few time period, that is the case of the so-called short panel. More concretely, the data set follows a population of Italian companies listed in STAR segment over a three-year period (2005-2007) and thus provides multiple observations on variable for each firm. In the following sub-paragraphs we describe the statistical techniques both available and used in the present research for analysing panel data.

\textsuperscript{28} The literature on panel data studied is Baltagi (2001); Greene (2003); Gujarati (2003, Chapter 16); Hsiao (2002); Kennedy, (2003, Chapter 17); Petersen (2004); and Wooldridge (2006, Chapters 13 and 14).
4.5.3.1 Panel data

Using panel data may have two main reasons. Firstly, panel data allows us to analyse change over time. However, in the present research some variables are largely time-invariant. Secondly, repeated observations on each firm make it possible to control for unobserved independent variables. Panel data also is used for the purposes of obtaining more information on the issues studied and so limiting the effect of any short-term irregularity inherent in annual data.

It is important to understand why we should care about controlling for omitted variables; thus it may be useful to address the homoskedasticity assumption underlying the classical regression model, i.e. Ordinary Least Square (OLS) regression. According to this assumption, the error term should have the same variance given any value of independent variables. It follows that the relationship between independent and dependent variables does not change across different cross-sectional firms and through time. The intercept is constant across different cross-sectional units and through time. This assumption may be violated if we take into account the individuality of each firm (i.e. unit). Furthermore, two kinds of variation exist, one between cross-sectional units and one within cross-sectional units (firm-specific effects). The reason why firm-specific effects are possibly observed relates to the operation of excluded variables. Indeed, one major benefit of panel data is that the latter help to control for such unobserved firm-specific effects.

4.5.3.2 Panel data Models

Panel data can be analysed by three models: Pooled OLS, the fixed-effects models and the random-effects model. The pooling OLS model is to what would be specified and estimates with cross-sectional data, only with more observations. Pooling of data implies that each observation (i.e. firm) is treated as a separate observation without considering that it may come from the same firm. Furthermore, pooled OLS has the assumption that the error terms are not correlated across time (assumption of no serial correlation). The panel data structure implies that each firm is surveyed repeatedly over several years (three years in our study), so the error term could be carried over from one year to the next. Because the pooled OLS standard errors ignore this correlation, they will be incorrect, as will the test statistics. It is possible that with pooled OLS t-values may be biased, which would lead to invalid outcomes for marginal effects. This is particularly likely to occur in the case when there is little within variation in one or

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29 The descriptive statistics discussed on chapter 5 shows that some of the independent variables little within variation. For instance, board size, number of independent, non-executive and executive director vary between company rather than within firm.
more of the independent variables and when the dependent variable remains fairly stable over time. It follows that the use of pooled data would imply that the ‘same’ observations are counted several times.

On the other hand, fixed-effects and random-effects models account for the presence of firm-specific effects in that they separate the error term into one time-invariant and firm-specific component, and one idiosyncratic component which changes within and between firms. In particular, fixed-effects model allows unobserved variables to be correlated with the error term, thus resolving the endogeneity problem which is related to omitted variables. Fixed-effects models purpose to «study the causes of changes within an entity (i.e. firm). A time-invariant characteristic cannot cause such a change, because it is constant for each person» Kohler and Kreuter (2009: 245).

Unlike fixed-effects model, the random-effects model posits that the independent variables are strictly uncorrelated with the error term. That model takes advantage of both cross-sectional and within-unit variation and it assumes that these effects are the same. In addition, random-effects models accounts for the fact that some observations belong to the same company. While the between estimator (fixed effect) makes comparisons between firms in their average outcomes (by taking the mean value of each variable for each firm across time), the within estimator (random effect) uses the intra-firm variation (by subtracting from each variable its mean value over time for the firm). The intercept is the mean value of all time-invariant and firm-specific intercepts, whereas the time-invariant and firm-specific component of the error term are the random deviation of individual intercepts from this mean value. The random-effects models consider the intercepts as being randomly drawn from a larger population – so they may be interpreted as random and treated as though they were part of the error term.

How could we decide among OLS pooled, the fixed-effects models and the random-effects model? The random-effects model can be consistently estimated by both the Random Effect estimator and the Fixed Effect estimator. This is usually tested by a (Durbin-Wu-)Hausman test. In particular, we use Hausman test to discriminate between FE and RE. This test differences between FE and RE estimates is statistically significantly different from zero. In particular, to decide between fixed and random effects we run Hausman test where the null hypothesis is that the preferred model is random effects versus the alternative the fixed effects (Greene, 2003). In particular, If the Hausman test does not indicate a significant difference (p > 0.05), however, it does not necessarily follow that the random effects estimator is “safely” free from bias, and therefore to be preferred over the fixed effect estimator (Clark and Linzer, 2012). Furthermore, we use Breusch-Pagan Lagrange multiplier (LM) which helps us deciding
between a random effects regression and a simple OLS regression. The null hypothesis in the LM test is that variances across entities are zero. This is no significant difference across units (i.e. no panel effect).

In our analysis, we have a short and unbalanced panel data which means that the number of time periods is not the same for all individuals (i.e. firms). We ran Hausman test for all models and it suggested to use fixed effects coefficients. In particular, we tested models considering also sector dummies and Hausman test confirmed that fixed effects are unbiased.

Furthermore, in order to ensure valid statistical inference when some of the underlying regression model’s assumptions are violated, it is common to rely on “robust” standard errors (Hoechle, 2007). Thus, all fixed effects coefficient analysed and described are the outcomes of robust test. Dielman and Rose (1997: 293) state that «estimating regression models using ordinary least square (OLS) yields parameter estimates that are unbiased and have minimum variance when the disturbances are independent and identically normally distributed. In the presence of non-normal errors, however, the performance of OLS can be quite impaired, especially if the errors follow a distribution that tends to produce outliers». One possible way to correct for heteroskedasticity is to use a robust model (Rousseeuw and Leroy, 2005). Therefore STATA 10 is used to perform robust coefficient and robust Standard Errors. In Stata 10, heteroscedasticity consistent or “White” standard errors are obtained by choosing option vce(robust) (Baum, 2006).

Thus, the use of robust standard errors does not change the coefficient estimates provided by fixed-effects models, but they change the standard errors and significance tests (Wooldridge, 2006).

4.6 Summary and Research Implications

In the present chapter, research methodology has been indentified and discussed. The chapter started by giving arguments for why issues are done from a philosophical and methodological prospective. In addition, it explains how and what has been done in the process. We discussed also about research phases which fundamental to carry out research. Last section is devoted to provide information concerning the approach, methodology, and methods used. This is fundamental in order to enable the reader to better understand the findings of our research.

So, we point out that we adopt a positivism approach due to its relevance to this type of research; moreover we apply quantitative methodology for us explanatory study. A deductive approach is adopted, it means that theory are deductively tested from existing knowledge, through developing hypothesized relations and proposed outcomes for
study. The purpose of the present explanatory study is to test and measure the relationship between board of directors mechanism and firm performance in Italian listed companies. We take into account a population of 54 Italian firms listed on STAR segment, given the emphasis on liquidity, information transparency and corporate governance. We collected data through two methods, manually by studying annual corporate governance report and by using Dastastream. After collecting all the necessary data, we elaborated it in Stata 10 by creating unbalanced panel data, as we studied 54 companies during three year with around 154 observations. We tested OLS pooled, fixed effects and random effects models. However, both Hausman test and Breusich-Pagan test confirm that fixed effect model is the best one and the unbiased one. For this reason, we adopted for our result fixed effect model. However, in order to obtain more robust coefficient, we made the robustness test. Finally, we considered only results coming from fixed effect model improved by robustness test.

The next chapter will present research hypothesis based on literature review, the model construction, and findings with their interpretation.
CHAPTER 5 - Model Application and Findings

Contents: 5.1 Introduction; 5.2 Measuring the relationship between Corporate Governance and firm performance, 5.2.1 Corporate Governance Single variable, 5.2.2 Corporate Governance Indices; 5.3 Italian context; 5.4 Hypotheses Development; 5.5 New model construction; 5.6 Variables; 5.7 Findings, 5.7.1 Descriptive statistics and Preliminary analysis, 5.7.2 Discussion of results; 5.8 Conclusions
5.1 Introduction

The present chapter describes different research on corporate governance with respect to the impact of board of directors or the overall governance mechanisms on firm performance. There are two main streams of research, one studies one or more corporate governance variables and their relationship with firm performance; one analyses the liaison between whole corporate governance (or corporate governance choices) and firm performance by using corporate indices. The present research follows the first stream of research. Furthermore, based on literature review we describe our research hypotheses which are tested in a population of Italian companies listed on STAR segment (Italian Stock Exchange). Then, after depicting the Italian context, we show descriptive statistics related to our population. Finally, we present our results obtained by running the model.

In particular, in section 2 we present two main streams of research with reference to the relationship corporate governance and performance. In section 3, we present the Italian context; in section 4 we describe our research hypotheses we want to test; then in section 5, we present the model and its variables. In section 6, we compare variables studied in chapter 3 and 5. Finally, results as well as descriptive statistics are shown in section 7. In section 8, we depict conclusions of this study.

5.2 Measuring the relationship between Corporate Governance and firm performance

There have been innumerable studies exampling the effect of board mechanisms on firm performance (Bhagat et al., 2010). Agency theory (Jensen and Meckling, 1976) states that there should be a clear connection between the strength of a company’s governance structure and firm performance. This information could be useful to creditors and investors in making financial decisions (Dunn and Sainty, 2009).

Generally, research focusing on relationship between board of directors features and firm performance starts from the assumption that an inherent conflict exists between principal and agent and it is necessary to overcome this problem by overlapping shareholders and management interests.

Two main veins of research exist:

1) Studies analysing one or more corporate governance variables and their relationship with firm performance;

2) Studies analysing the liaison between whole corporate governance (or corporate governance choices) and firm performance by using corporate indices.
5.2.1 Corporate Governance Single variable

There is considerable research on corporate governance single variables and firm performance in order to identify what kind of relationship between board of directors and performance exists. Since the board has multifaceted tasks (O’Connel and Cramer, 2010; Ruigrok et al., 2006), it seems reasonable to assume that boards may affect firm performance; thus scholars are interested to understand what types of board structures are the best to maximize shareholder’s wealth (Monda and Giorgino, 2013), firm value, and growth (Maher and Andersson, 1999; Agrawal and Knoeber, 1996). According to McIntyre and Murphy (2007), the mainstream of corporate governance literature studies the board of directors features in relation to a number of different variables.

In this study, we can distinguish at least four types of current research. In particular,

a) Studies aimed to analyse the relationship between the board of directors size and performance.
b) Studies aimed to analyse the relationship between the board of directors compositions (executive, non-executive, independent directors) and performance.
c) Studies aimed to analyse the relationship between leadership structure (e.g. top management turnover, board change, CEO and Chairperson, ownership) and performance.
d) Studies aimed to analyse the relationship between internal and external control (independent directors, audit committee, supervisory board if existing, etc.) and performance.

These studies were outlined in chapter 3 (section 4) and chapter 5 (section 4). For this reason, we will not depict a detailed view of that research in this section.

The first research vein deals with the studying of relationship between board of directors size and firm performance. It shows both advantages and disadvantages of having a large or small board. Forbes and Milliken (1999) and Goodstein et al. (1994) point out that a greater number of directors bring their skills and expertise that an individual can not possess. Thus, on the boards of larger size new strategic perspectives can be more easily developed to contrast the CEO power (Forbes and Milliken, 1999) and ensure more effective control over the management (Zhara and Pearce, 1989 and Ocasio, 1994). In this vein, Daily and Dalton (1998) find positive correlation between board size and firm performance, especially for small medium enterprises. On the other hand, even though a greater board size could increase control over top management, benefits from larger boards are lower than the costs incurred. Indeed, a higher number
of directors could be related to slowness in decision-making, difficulties in coordinating and organizing directors, inability to maintain high motivational levels (Lipton and Lorsh, 1992), and CEO predominant role (Mintzberg, 1983). It follows that a negative correlation between the board size and firm performance (De Andres et al., 2005) – measured by Tobin’s Q (Yermack, 1996), ROA (Eisenberg, Sundgren, and Wells, 1998; Bhagat and Black, 1998/2002), and ROE (Conyon and Peck, 1998) exists.

The second research current concerns analysis of the relationship between the board of directors compositions (executive, non-executive, independent directors) and performance. Research does not agree on the best board of directors composition, indeed optimal board composition cannot exist (Hermalin, 1994 and Kole, 1997) because several variables (e.g. shareholders presence on board, regulations) influence each firm (Weisbach, 1988). Several studies (De Andres et al., 2005 and Adjaoud et al., 2007) find that there is no correlation, either positive or negative, between board composition and performance. Yet, Klein (1998) and Bhagat and Black (2002) claim that a positive connection exists between outside directors and performance; in contrast Agrawal and Knober (1996) and Coles et al. (2001) find a negative correlation between outside director and performance (measured with Tobin’s Q and Market Value Added).

We notice that Italian, English, American, Japanese and German Codes of Conduct focus mainly on independent directors or a balance between inside and outside directors, as Agency theory claims; whereas empirical studies do not seem to have reached a shared conclusion. Moreover, there are few studies related to executive directors, because discussion on the board composition is centred on role and effects of independent directors. Executives are an important source of firm-specific information for the board, but perhaps do not monitor CEO due to lack of independence from the latter and private benefits (Raheja, 2005). In fact, inside directors should provide first-hand information on the company operation to other board directors (Boumosleh and Reeb, 2005). In addition, «inside directors are usually aligned with the CEO» (Shakir, 2008). An implicit relationship with CEO exists, because the latter - who is the highest-ranking executive within the company – has power in appointment insiders who are loyal to CEO. For this reason, executives do not contribute towards effective monitoring of CEO and fail to enhance firm performance (Sirmans, et al., 2006).

The third research current deals with relationship between leadership structure (e.g. top management turnover, board change, CEO and Chairperson, ownership) and performance. According to Warner, Watts and Wruck (1988), Weisbach (1988), Kaplan (1994a, 1994b) and Denis and Sarin (1995), turnover of management board increases significantly with performance (e.g. stock performance), directors who have performed poorly have a significantly higher probability of losing their position within the
company. On the other hand, Franks et al. (1996) reveal that a high turnover, observable in the presence of unsatisfactory performance, is more sensitive to losses. Regarding board change and performance, some studies (Hermalin and Weisbach, 1988; Yermack, 1996; Einseberg et al., 1998) reveal that poor performance leads to changes in board composition, whereas board size does not change. However, Gilson (1990) – studying financial firms – highlights intense turnover accompanied by a reduction in the board of directors size in the case of poor performance. Consistent with monitoring of the board over management, Hermalin and Weisbach (1988) and Weisbach (1988) find that the appointment of outsiders, rather than insiders, is more likely in the case of companies with poor performance and with a large board of directors. Similarly, Fich (2005) finds that outside CEOs are more likely to be appointed in firms with higher growth opportunities, because they provide the knowledgeable counsel needed to foster firm performance. Kaplan and Reishus (1990) show that new outsiders will be appointed in the case of top executives reducing dividends by 50%. The research of Brickley et al. (1999) reveals that directors of underperforming firms suffer from tarnished reputations in the market for directors. Finally, Rosenstein and Wyatt (1990/1997) find that stock prices rise around the announcement of new outside directors, but they do not observe any effect of the appointment of new inside directors. As regards CEO duality, studies on the role of CEO and Chairperson find conflicting results that can be summed up as follows. CEO duality has positive effect on performance, measured by ROI, ROE (Boyd, 1995; Coles et al., 2001); on the other hand CEO non-duality has a positive relation with performance measured by ROI and Tobin’s Q (Rechner and Dalton, 1991; Yermack, 1996). However, Baliga et al. (1996) suggest that neither CEO duality nor non-duality have important effects on performance measured by ROE, Market Value Added, ROA, and ROI. In fact, most findings have proclivity for positive correlation between CEO non-duality and firm performance. It is interesting to notice that Dalton et al. (1998) find that Joint Stock Companies with few independent directors and characterized by CEO non-duality are coupled positively to bankruptcy. Thus it would seem that empirical research confirms what codes of best practice recommend (with the exception of America and German) and what agency theory claims. Finally, some research on company ownership has centred on the fact that firms (especially US ones) are owned by dispersed shareholders and are controlled by managers who own few or no firm shares. Holderness (2003) examines US literature studying the effects of insider and blockholder ownership on firm value. He finds different results. On the one hand, some scholars (Mehran, 1995; Himmelberg et al., 1999; Claessens and Djankov, 2000; Miguel et al., 2001) show no significant relationship between firm performance and the holdings of variety by different types of blockholder. In contrast, Morck, Shleifer, and

30 CEO duality implies that the same individual serves both as Chairman and as CEO; whereas CEO-non duality the roles of chairman and CEO are split.
Vishny (1988) and McConnel and Servaes (1990) find that, when inside ownership increases beyond a certain level, the so-called entrenchment effects of inside ownership is linked with lower firm value. On the other hand, other academics (Carline et al., 2002; Lins and Servaes, 1999) find a positive impact on performance in the case of managerial equity holdings.

The forth research current focuses on relationship between internal and external control (independent directors, audit committee, supervisory board if existing, etc.) and performance. Corporate governance studies have also centred on monitoring and control role of the board (including independent directors, audit committee) and barely studied the supervisory board, and external control. Fama and Jensen (1983) suggest that external auditors introduction is fundamental to stimulate and control competition among top managers. In this context, research is more fecund with independent directors and audit committees rather than supervisory board, probably because most of the studies focus on Anglo-American companies where the latter does not exist. Several studies have focused on independent directors as an essential tool to supervise the board. The majority of these studies have confirmed the importance of independent directors within the company, both when analysing impact on the company value (Baysinger and Buttler, 1985; Rosenstein and Wyatt, 1990; Pearce and Zahara, 1992; Cotter and Silvester, 2003) and when studying the impact where mangers and shareholders’ interests are in conflict (Weisbach, 1988; Heriulan and Weisbach, 1988; Bricklet et al., 1994; Borkhovich et al., 1996). The presence of independent directors allows the board to fill its role of control with efficiency (Chouchene, 2010). Audit committee, like the board of directors, has been studied under different aspects, such as independence (Klein, 2002; Bedard et al., 2004; Bradbury, 2006), expertise (Song and Windram, 2004; Bedard et al., 2004), meetings (Xie et al., 2003; Ebrahim, 2007), size (Lin et al., 2006; Baxter and Cotter, 2009) related with performance. The audit committee has a control and monitoring role of managers’ discretion over the accounting policy. An effective audit committee may add more quality to the audit process, by overseeing the financial reporting process, by coordinating the internal and external audits, and assuring the independence of external auditors from managerial pressure (McMullen and Ragunananadan, 1996). Parker (1992), as cited in Collier and Gregory, (1996) defined an audit committee as «A committee appointed by a company as a liaison between the board of directors and the external auditors, this committee normally has a majority of non-executive directors and is expected to view the company's affairs in a detached and dispassionate manner». Supervisory board efficacy (when existing)\(^\text{31}\), has significantly increased in recent years; in fact it is involved in the

\(^{31}\) It is noteworthy that supervisory board does not exist in UK and US companies, because its role is played by the audit committee (i.e. one tier model); whereas in German and in Italy (respectively, two-tier
decision-making process on management decision and on company strategy (Lieder, 2010). Indeed, the main responsibility of the supervisory board is to supervise the board, ensuring directors act on the best interest of the company’s shareholders. The need for this kind of supervision may be rooted in the agency theory which suggests that «management opportunism arises as a result of the separation of ownership and management». (Peij et al., 2012: 4). External audit (e.g. the so-called Big4) is an external corporate mechanism that assesses and evaluates internal company controls and audits their financial statements to prevent mis-statements. The external auditor may have an impact on the efficacy of the control and monitoring role of the company (Habbash, 2010) and as a consequence on performance. Nicholson and Kiel (2004) argue that researchers are interested in the monitoring and control role of the board with respect to three factors a) the growing legislation of board duties; b) corporate scandals; and c) the increasing popularity of agency theory. Recent legislation has increased significantly the board’s control and oversight duties (Nicholson and Kiel, 2004a; Jackling and Johl, 2009). These developments occurred because stakeholders want greater standards of governance, professionalism from boards and higher accountability (Ingley and Van der Walt, 2001). So, legislation has improved existing company by-laws and market listing rules that require the board to exercise control over management in the shareholders interests (Vagliasindi, 2008). Several corporate governance scandals occurred in developed countries, exposing significant weaknesses in corporate governance which led to destruction of shareholder value (Burrough and Helyar, 1990; Ingley and Van der Walt, 2001; Nicholson and Kiel, 2004a; Haleblian and Rajagopalan, 2006). The third factor identified by Nicholson and Kiel (2004) is the increasing importance of agency theory, according to which the increase in management power may enable them to follow self-interests that may differ from those of shareholders (Berle and Means, 1932; Herman, 1981; Pathiban and Rahul, 1996). Capital providers lack the resources or incentives to monitor, and control managerial actions that may go unchecked, causing a decrease of shareholder wealth (Pathibul and Rahul, 1996). In light of the above, «internal and external control mechanisms can be collectively employed to address the conflicting interests of firm managers, shareholders, and other stakeholders» (Waymire, 2008:1).
5.2.2 Corporate Governance Indices

There have been many attempts to quantify the quality of corporate governance – by using rating or indices – and the effect on firm performance. Those studies examine the relationship between a composite measure of corporate governance and firm performance.

One of the most important indices was built by Gompers, Ishii and Metrick (2003), called G-index. They start from using information - provided by Investor Responsibility Research Center (IRRC) - on 24 different features of corporate governance divided into five groups (Delay, Voting, Protection, Other and State). In order to proxy the level of shareholder rights, they construct “Governance Index”, using the incidence of 24 governance rules (called “provisions”). The results show that «firms with stronger shareholders rights had higher firm value, higher profits, higher sales growth, lower capital expenditures, and more fewer corporate acquisition» (Gompers, Ishii and Metrick, 2003: 1). In the following years, several scholars started from aforementioned research in order to improve or build other indices measuring good governance. Bebchuk and Cohen (2005), using the same database (i.e. IRRC), built another index, called “Entrenchment index”, composed of only six of the twenty-four elements of corporate governance studied by Gompers, Ishii and Metrick (2003). Bebchuck et al. (2005: 39) find that those variables «are negatively correlated with firm valuation, as measured by Tobin’s Q, as well as with stock returns during the 1990-2003 period». Cremers and Nair (2005), like the academics previously mentioned, focus their research on USA financial market, studying the period from 1990-2001. They reckon that Gompers, Ishii and Metrick index considers only partially corporate governance. For this reason they added a further measure of external governance, based only on three variables, called Alternative Takeover Index, as well as two more measures of internal governance (the percentage of share held in each firm by firm’s largest institutional blockholder and by the largest public pension funds). The results, even though based on indices plurality, confirm what other scholars have claimed, i.e. «external and internal mechanisms are strong elements in being associated with long-term abnormal returns and accounting measures of profitability».

Moreover, Brown and Caylor (2006) built another index called “Gov-Score” which considers 51 internal and external factors of corporate governance, divided into eight categories. These academics, unlike the researchers aforementioned, use another data source provided by Institutional Shareholder Services (ISS). Finally Brown and Caylor (2006: 31) find that all governance internal and external elements «are associated with good firm performance, suggesting that these exchange requirements may facilitate good performance».  

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Another study on American firms was conducted by Aggarwal et al. (2007) who compare US and foreign firms listed on stock exchange in the US, using seven dimensions of corporate governance. They find that in firms with board independence board and audit committees have more value than other firms. Moreover, most foreign companies have worse governance mechanisms than US based firms.

Research based on quantifying the quality of corporate governance in the firm by using ratings is common not only in the US market. Klapper and Love (2004) developed an index for 14 emerging markets, using a composite of 57 qualitative binary questions issued by Credit Lyonnais Securities Asia (CLSA). In Europe, Drobetz et al. (2004) built a governance score for German companies, gathering 30 governance elements divided into five categories (corporate governance commitment; shareholders’ rights; transparency; management and supervisory board matters; and auditing). He found a positive relationship between corporate governance and expected stock return. Ødegaard and Bøhren (2003) studied firms listed on Oslo Stock Exchange in Norway and they found a significant effect of good corporate governance ratings on firm value (measured by Tobin’s Q). In Italy, Colarossi and Giorgino (2006) built a specific index based on 31 variables, aimed to verify the relation between governance quality and financial performance in Italian listed companies. Mazzotta (2007) developed the governance quality index, obtaining results that show a positive connection between governance quality and firm performance. Regalli et al. (2011) formulated a specific index (Sir Index) taking into account the main variables useful in understanding the asymmetry between majority and minority shareholders, applied to Italian listed companies.

Other research has been conducted in different contexts such as South America (e.g. Garay and Gonzalez, 2008, analysed Venezuela; Chong and Lopez de Silanes, 2006, studied Mexico); and Asia (Black, Jang and Kim, 2005)

Finally, Mintz (2005) dealt with 2003 Governance Metrics International (GMI) survey including 23 countries where UK, Canada and US hold respectively the first three positions in good governance practices; while Japan and Greece rank the lowest.

Although the results reported seem to assign a prominent role to corporate governance in relation to firm performance, it should be noted that the findings arrived at by the studies cited are not conclusive. Indeed, several scholars raise some doubts on obtained results. First, as Donker and Zahir (2008) believe, «there is a weak relationship between the enterprise performance and the rating score obtained by this rating system» and «instead of single period analyses, panel data analysis should be used in empirical corporate governance research to measure the influence of changes in corporate
governance on firm performance». In the same vein, Bhagat et al. (2007) deem that indices cannot predict future stock market performance, because they are just one of many “pieces of information” relating to corporate governance quality. Another criticism of indices comes from the causality relation; Lehn et al. (2007) finds that G-index and Entrenchment index «are inversely related to lagged market-to-book ratios but not to subsequent market-to-book ratios. These results also are consistent with the hypothesis that causation runs from valuation to governance». Last but not least, some studies (Brown and Caylor, 2006; Lewellen and Metrick, 2010) have tried to apply US indices (such as G-index) outwith that context and have found a weak relation between corporate governance and firm performance. Environmental differences (La Porta et al., 2000; Martynova and Renneboog, 2010) make it difficult to repeat the results obtained outside the context in which a specific model has been developed.

In sum, many indices are built starting from principles contained in codes of best practices in order to measure the existence of the link between good governance and financial performance. Indeed, many companies still remain unconvinced and the «adoption of good governance principles has been “patchy” at best, with “form over substance” often the norm» (Bradley, 2004: 8-9). Albeit many indices or scores have been built to measure corporate governance from a compliance perspective, there is currently no worldwide benchmark with which to measure governance principles or standards.

**5.3 Italian context**
Before analysing research hypotheses and findings, it is useful to resume the Italian context and the main features of Italian companies.

Italy is dominated by small and medium enterprises. Italian context is different from the other developed countries and may reflect different ownership structure, corporate governance conduct and firms financial performance (Fauzi and Locke, 2012).

In Italy, company law permits Italian companies to choose between either one-tier (typical of Anglo-Saxon system) or two-tier (typical of German-Japanese system) or ‘horizontal’ two-tier structures (it is also defined as “traditional model”); the last two compromise a supervisory board and a management board. However in practice, according to Soana and Stefanelli (2009) Italian companies do not often adopt one-tier and two-tier models; whereas the traditional one is more widespread among Italian firms.

The corporate governance system in Italy has three distinctive features.
Firstly, the Italian Governance structure is characterized by the so-called *traditional model* or ‘*horizontal* two-tier model’. The expression points out that the shareholders’ assembly appoints both the board of directors and the supervisory board (Fiori, 2003). Thus, there are not the two appointment’s levels, like the *two-tier system*. The board of directors has the task of directing/managing the company in terms of making the industrial and financial strategic plans. Directors are proposed by the chairperson or blockholder and appointed by shareholder’s meeting. On the other hand, the supervisory board is called to ensure that laws and by-laws are observed, respecting the principles of best practice. It is composed by at least three members and they have the power to call the shareholders meeting when they reckon that it is necessary because of board of director decisions. The supervisory Board ‘has partially remained “non-political” (i.e. not involved in strategic issues), but also become closer to German Supervisory Board’ (Melis, 2000). Figure 5.1 shows the horizontal two-tier model or traditional model which is very common in Italy.

Secondly, the stock ownership of large Italian companies is more concentrated than that of large US and UK companies. The Italian firms characterized by a high ownership concentration can be divided in two different classes: a) family or public pyramidal group (Moro Visconti, 2001); b) small/medium family enterprises or joined together (Guatri and Vicari, 1994). As a general fact, firms are distinguished by a majority shareholder or a shareholders group linked by a union agreement. There is only a limited separation between ownership and control firm, due to family capitalism (individuals, often linked by family relationships to other investors in the firm, control almost half of the companies).
In order to protect the high concentration of the company ownership, the management control system is committed to the board of directors instead of the stock market (Bianco and Casavola, 1999). The Italian system is connoted by a limited role of the financial market; indeed Melis (2000) argue that ‘Self-financing and bank debts are the main sources for corporate founding’.

Thirdly, even if the majority of Italians listed companies adopts ‘horizontal’ two-tier model or traditional one, banks have not control of shareholder votes like in Germany. Banks usually have a minor role in corporate governance in Italy. They provide external financing to the companies; indeed the practice of multiple loans is widespread, because firms may spread the risk, but also decrease ‘the incentives for the banks to have a stake and monitor corporate management, since it never happens that a bank has a large share in a single firm’ (Melis, 2000). Hence, banks and financial institutional as well do usually not directly influence board of directors strategies and decisions, as far as firms manage to honour its debts. However, a bank may influence indirectly management decisions, by recalling its credits.

Furthermore, it appears fundamental to focus the attention on the concept of "independent" which is different internationally, and is closely related to how Board of Directors is structured in different corporate governance systems. For this reason, some independence features of Italian corporate governance systems are shown. In general terms, «Independent directors are supposed to introduce ideas and perspectives from the outside, serving as a “window to the world”» (Andrews, 1981: 175). In narrow terms, in Italy the independence requirement of board members si regulated by Italian Code of Corporate Governance. In particular, 2011 version and 2006 version (article 3) remain unchanged about criteria to define an independent director. According to these codes, a director usually appears independent in the following events:

1) if he/she does not control, directly or indirectly, the firm through subsidiaries, trustees and third parties; he/she does not have dominant influence over the firm and shareholders’ agreement;

2) if he/she is not a significant representative of the firm, and subsidiaries and he/she has not been an employee in the preceding 3 fiscal years;

3) if he/she has never had significant commercial, financial and professional relations with the firm or who controls that firm;

33 I would like to thank you the referees for their suggestions about independence issue within Italian context.
4) if he/she has not received in the preceding 3 fiscal year a significant addition remuneration from the firm, subsidiaries or holding;

5) if he/she is not vested with the executive director office in another company in which an executive director of the issuer holds the office of director;

6) if he/she is not a shareholder or a close relative of directors, person who controls the firm, subsidiaries, holding and trustees.

We should say a few words about the complex internal control system of the Italian companies. Indeed, as far as the Italian legislation is concerned, unique regulation which companies have to comply with does not exist, but there are different rules which are fundamental in relation to the internal control matter (Arena et al., 2006).

Three levels of internal control exist:

1st Level Control Activity (Line Control). This deals with operating areas that identify and access risk, implementing specific actions for management of that risk.

2nd Level Monitoring Activity (Risk Management, Compliance, Controller). This department is responsible for risk control and identifies methodologies and instruments for managing risk and monitor that risk.

3rd Level Assurance Activity (Internal Audit). This provides independent evaluations of the whole Internal Control System, aiming to improve its effectiveness and efficiency.

In particular, the board of directors, the CEO, the Supervisory Board, the Surveillance Body34, the Audit committee/Internal control and risk committee35 belong to the 1st level of internal control. Whereas management control, Risk Management, Compliance Officer and other control functions (such as Quality, Security Control) belong to the 2nd level; finally Internal Audit belongs to the 3rd one.

As far as 1st level of internal control system is concerned, the board of directors:

a) define the guidelines of the internal control system, so that the main risks concerning the issuer and its subsidiaries are correctly identified and adequately measured, managed and monitored, determining, moreover, the level of

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34 Surveillance Body was set up with Legislative Decree no. 231/2001 which introduced the responsibility of Italian firms for public crimes and the so-called white-collar crimes, with particular interest relating to frauds against the public administration (Arena et al., 2006).

35 The control and risk committee was introduced in 2011 by the Italian Code of Corporate Governance. It replaced the previous Audit Committee which identified with the Supervisory Board, according to Legislative Decree no. 39/2010, art. 19. In particular, the control and risk committee plays the role of «supporting, on the basis of an adequate control process, the evaluations and decisions to be made by the Board of Directors in relation to the internal control and risk management system, as well as to the approval of the periodical financial reports» (Italian Codes of Corporate Governance, 2011: 30).
compatibility of such risks with the management of the company in a manner consistent with its strategic objective

b) identify an executive director (usually the CEO) who is in charge of monitoring the internal control system functionality.\(^\\text{36}\)

c) provide strategic guidance and evaluation on the overall adequacy of the system

d) appoint and revoke the person in charge of the internal audit function.\(^\\text{37}\)

The Supervisory Board supervises:

a) compliance with laws and statute of the association,

b) compliance with fair administration principles,

c) adequacy of the organizational structure in relation to competences, internal control system, administrative and accounting system, fairness of these systems in representing relevant item (Legislative Decree number 58, 1998, the so-called Draghi Law).

Furthermore, according to Legislative Decree no. 39/2010, art. 19, the Supervisory Board is identified with Audit Committee, this means that the former fulfils the same tasks and duties of the latter. Indeed, the latest version of Italian Code of Corporate Governance (2011) recommends the establishment of the Control and Risk Committee. It has to support, on the basis of an effective control process, the assessment and decision to be made by the board of directors related to the internal control and risk management system with the approval of the periodical financial reports.

The Surveillance Body has to implement an organizational model for risks identification and assessment, and the implementation of an appropriate control system.

The audit committee recommended by the Italian Code of Corporate Governance (1999, 2002, 2011) has to

(a) assess the adequacy of the internal control system,

(b) monitor the work of the corporate internal auditing staff,

(c) report to the board of directors on its activity at least every six months and

\(^{36}\) This task was abolished in 2011 so the board of directors companies studied during the period 2005-2007 had to fulfill that role.

\(^{37}\) The main four tasks aforementioned were presented in 2006 Italian Code of Corporate Governance.
(d) deal with the external auditing firm.

According to Melis (2002), it has a similar role to that of British audit committees (Spira, 1998; Windram and Song, 2004). It is appointed by the board of directors and should be composed of non-executive directors in order to be able to carry out its functions autonomously and independently.

*As regarding the 2\textsuperscript{nd} level of internal control system*, in general the bodies who are in charge of this level of control oversee the process of identification, assessment, management and control of the risks associated with firms actions to ensure consistency with business objectives. In particular, *management control systems* (Brimson, 1994; Norton and Kaplan, 1996; Lorino, 1992; Del Bene et al., 2005) in line with the prevailing strategic orientation, increasingly improve those aspects related to effectiveness, to quality, client satisfaction, to a transversal vision of the healthcare organizations, to outward orientation, to a multidimensional analysis of management, to emphasis the strategic sphere.

*As regarding the 3\textsuperscript{rd} level of internal control system*, the person in charge of monitoring the internal audit has the task of verifying the functioning and adequacy of the internal control and risk management system. In particular, Internal Audit has to:

a) verify the adequacy and effective functioning of the System of Internal Control and Risk Management through an audit plan, approved by the Board of Directors, based on a structured analysis and ranking of the principal risks

b) gain direct access to all information necessary for the execution of his responsibilities

c) prepare periodic reports containing adequate information on Internal Audits activities, and on the Company’s risk management process, as well as adherence internally to plans established for risk mitigation

d) submit the above reports to the Chairman of the Board of Statutory Auditors, the Internal Control and Risk Committee, the Board of Directors, the Director responsible for the System of Internal Control and Risk Management

e) Verify the reliability of information systems, including accounting systems
Finally, as regards external auditing, the external auditing firm is appointed by the shareholders’ assembly, although the supervisory board should express opinion about that external gatekeeper.

5.4 Hypotheses Development

The present research takes into account eight key critical factors of corporate governance, namely we consider five aspects regarding Board of Directors structure (i.e. Board size, Independent directors, Executive directors, Non executive directors, CEO duality) and three aspects related to Auditing mechanisms (i.e. Supervisory board members, Audit Committee, the so-called Big Four). Each of these aspects represents an independent variable of the econometric model that we are trying to build. For each of the eight variables we develop eight different research hypotheses based on the existing international literature.

The impact of Board size on firm performance

Board of directors is considered as one of the primary internal corporate mechanisms (Brennan, 2006). A well-established board with optimum number of directors could monitor effectively management and drive value enhancement for shareholders. The board size, therefore, is a key factor that influences firm performance (Kumar and Singh, 2013). Board of directors, acting on behalf of shareholders, plays a central role as an internal mechanism and is considered as a major decision-making body within companies. Due to the complexity of role played by board, it is hard to have unambiguous answers related to the optimum number of directors on the board (or board size). Different and opposing theoretical evidence is presented to support efficacy of both large and small board dimension on firm performance. Some scholars (Coles et al., 2008; Dwivedi and Jain, 2005; Ehikioya, 2009) find a positive correlation between board size and corporate performance. Advocates of large board size argue that a larger group of directors could improve the efficacy of the decision-making process due to information sharing (Lehn et al., 2009). Given the variety of board type, directors come from diverse professionals fields, and have different expertise, and different skills. Two principal positive consequences however, can be outlined. Firstly, the knowledge of wide pool of experts can be useful for making some strategic decisions which can enhance firm performance (Pearce and Zahra, 1992). Secondly, they could assist in the establishing of external links with the environment, obtaining scarce resources and ‘bringing more highly qualified counsel’ (Dalton et al., 1999).
On the other hand, several researchers (De Andres et al., 2005) maintain that a larger board is less effective in enhancing corporate performance. The majority of academics find a negative association between board size and performance (Jensen, 1993; Huther, 1997; Eisenberg et al., 1998). Ahmed et al. (2006) and Dalton et al. (1999) suggest that new ideas and opinions are less likely to be expressed in large pool of directors, and the monitoring process becomes milder. Larger boards increase problems of communication and coordination (Jensen, 1993; Bonn et al. 2004; Cheng, 2008) and higher agency costs (Lipton and Lorsh, 1992; Cheng, 2008). Furthermore, larger boards could face the problem of greater levels of conflict (Goodstein et al., 1994) and of lower group cohesion (Evans and Dion, 1991). Poor coordination among directors leads to slow decision making and information transferring and cause inefficiency in firms with larger board size (Goodstein et al., 1994). In fact several empirical studies confirm that when board size increases firm performance decreases progressively (Mark and Kusnadi, 2005; O’Connell and Cramer, 2009). For instance, Conyon and Peck (1998) find a negative association between board size and return on equity for a sample of European companies.

It is relevant to highlight that other scholars reveal no relations between board size and firm performance (Kaymak and Bektas, 2008). So it would seem that board size is not a key success factor for companies.

The above discussion clearly emphasizes how the relationship between board size and corporate performance has been studied in depth and how it represents a central topic within corporate governance. Table 5.1 outlines empirical research conducted at international level.

We could hypothesize:

Hp 1: Firm performance exhibits a negative association with board size.
<table>
<thead>
<tr>
<th>Author</th>
<th>Publication Year</th>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Sample</th>
<th>Year(s) of analysis</th>
<th>Findings</th>
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<tbody>
<tr>
<td>Beiner et al.</td>
<td>2004</td>
<td>Board size</td>
<td>Tobin’s Q</td>
<td>Swiss Public listed companies</td>
<td>2001</td>
<td>No consistent relationship</td>
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<td>Belkhir</td>
<td>2004</td>
<td>Board size</td>
<td>Tobin’s Q, ROA</td>
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<td>No convincing evidence</td>
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<td>Non linear relationship</td>
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<tr>
<td>Bhagat and Black</td>
<td>2002</td>
<td>Board size</td>
<td>Tobin’s Q</td>
<td>USA Large Public companies</td>
<td>1988-1993</td>
<td>No consistent relationship</td>
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<tr>
<td>Bozec and Dia</td>
<td>2007</td>
<td>Board size</td>
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<td>Canadian Public owned companies</td>
<td>1976-2001</td>
<td>Large companies is more effective at coping with a complex and uncertain environment</td>
</tr>
<tr>
<td>Cheng</td>
<td>2008</td>
<td>Board size</td>
<td>Tobin’s Q, ROA</td>
<td>USA listed companies</td>
<td>1996-2004</td>
<td>Firm with large boards of directors have less variable performance</td>
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<td></td>
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<td>Year</td>
<td>Variable 1</td>
<td>Variable 2</td>
<td>Country/Region</td>
<td>Period</td>
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<td>9</td>
<td>Coles <em>et al.</em></td>
<td>2008</td>
<td>Board size</td>
<td>Tobin’s Q</td>
<td>USA large companies</td>
<td>1992-2001</td>
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<td>11</td>
<td>Dalton <em>et al.</em></td>
<td>1999</td>
<td>Board size</td>
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<td>Us companies</td>
<td>Meta-analysis of 27 studies with a total of 131 companies</td>
</tr>
<tr>
<td>12</td>
<td>De Andres <em>et al.</em></td>
<td>2005</td>
<td>Board size</td>
<td>Market-to-book ratio Tobin’s Q</td>
<td>10 OECD countries (450 companies)</td>
<td>1996</td>
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<tr>
<td>13</td>
<td>De Andres <em>et al.</em></td>
<td>2005</td>
<td>Board size</td>
<td>Tobin’s Q, Market to book value</td>
<td>10 OECD countries companies</td>
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<td>Guest</td>
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<td>Profitability, share returns, Tobin’s Q</td>
<td>2,746 UK listed firms</td>
<td>1981-2002</td>
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<td>19</td>
<td>Huther</td>
<td>1997</td>
<td>Board size</td>
<td>Total variable cost</td>
<td>US Electricity companies</td>
<td>1994</td>
</tr>
<tr>
<td></td>
<td>Author(s)</td>
<td>Year</td>
<td>Variable</td>
<td>Measure</td>
<td>Sample</td>
<td>Date Range</td>
</tr>
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<td>-------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>23.</td>
<td>Kaymak and Bektas</td>
<td>2008</td>
<td>Board size</td>
<td>ROA</td>
<td>Turkish banks</td>
<td>2001-2004</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(board size is correlated positively with market value)</td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(negative board size effect)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Author(s)</td>
<td>Year</td>
<td>Variable(s)</td>
<td>Sample Description</td>
<td>Years</td>
<td>Result(s)</td>
</tr>
<tr>
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<td>-------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>33.</td>
<td>O’Connell and Cramer</td>
<td>2009</td>
<td>Board size</td>
<td>TOBIN’S Q, ROA, RET(^{38})</td>
<td>2001</td>
<td>Negative relationship</td>
</tr>
<tr>
<td>34.</td>
<td>Ødegaard and Bøhren</td>
<td>2003</td>
<td>Board size</td>
<td>Tobin’s Q</td>
<td>1989-1997</td>
<td>Negative relationship (negative board size effect)</td>
</tr>
<tr>
<td>35.</td>
<td>Postma <em>et al.</em></td>
<td>2003</td>
<td>Board size</td>
<td>ROA, ROS, ROE, Market To Book Value</td>
<td>1996</td>
<td>Negative relationship (negative board size effect)</td>
</tr>
</tbody>
</table>

\(^{38}\) RET = market-based measure. It is calculated as the change in stock price plus dividend for the period.
The impact of Board composition on firm performance

The board composition concerns three different kinds of directors who make up the Board of Directors: Independent (or outside), Non-Executive (or Grey) and Executive (or inside) directors. Boards are generally composed of a mix (Hermalin and Weisbach, 2003), so the distinction between those types of directors is essential because they provide specific benefit to the firm they serve (Mizruchi, 1983).

Independent outside directors are those ‘who have no affiliation with the firm except for their directorship’ (Clifford and Evans, 1997). Independent director role is to monitor management decisions and activities by corporate boards (Fama, 1980). This implies that they become more responsive to investors, because they have to ensure that management decisions are made in the best interests of shareholders. Independent directors (non-management) have a very high effectiveness due to their independence of CEO and firm (Johnson, Daily, and Ellstrand, 1996). Executive or Insider directors are ‘typically corporate officers, retirees or family members’ (Clifford and Evans, 1997). They provide valuable information to independent directors concerning ‘the criteria necessary for evaluating the performance of senior manager’ (Baysinger and Butler, 1995; Fama and Jensen, 1983). Non-executive directors are defined as a source of managerial wisdom (Mace, 1971) who are fundamental to improve decision making. They are financiers, lawyers, consultants and bankers who may provide advice as well as counsel to inside managers. They may serve to create relations and interlocks with other organizations, firms, minimizing transaction cost (Thompson, 1967). They are also defined as “grey” or “affiliated” directors, because they are ‘not full time employees of the firms but [are] associated in some way’ (Clifford and Evans, 1997).

A good and efficient Board of Directors may be composed of a mixture of Independent, Non-Executive and Executive directors, because they provide different expertise, contribution to the company and they must fulfil different roles which are fundamental for every firm. Scholars have tried to unveil which is the best composition or proportion of board members that effect firm performance. Hermalin (1994), Kole (1997), Hermalin and Wallance (2001), however, argue that it is not possible to define a specific board composition which is optimal for all companies. Thus, «the impact of board composition on performance could be difficult to identify cross-sectionally» (Hermalin and Weisbach, 2003). These results are consistent with Baysenger and Butler (1985) who suggest that it is not possible to define a priori the precise and optimum composition of Board of Directors which suits every company. This compositional mix depends on contingent factors, and environment which vary from country to country and from firm to firm. However, some scholars have tried to define a number or a range of number which may be considered the best composition (Jensen, 1993; Airoldi et al.,
Lipton and Lorsch (1992) suggest a ratio of at least two independent directors to one non-independent and board committees that consist solely of independent directors, one of whom should be the chair. However, public policy or codes of corporate governance require at least 50% independent directors within the board.

Empirical research is more fecund on Independent directors rather than executive (or inside) and non-executive ones, probably because they have a difficult role of monitoring management and of making sure that managers’ behaviour is aligned to shareholders interests. Consequently they are mediators between manager and stock owner in order to minimize agency costs, due to the well-known conflict between Agent and Principal. Thus, they represent one of the pillars of agency theory which is the theory underlying the Anglo-Saxon model (Berle and G. Means, 1932; Carroll, 1993). This is the reason why UK and US literature study outside directors role, and their effect on firm performance in depth. In addition, International Codes of Best Practice focus their attention also on outside directors in order to guarantee Board independence and monitoring role.

The impact of Independent directors on firm performance

There have been mixed results relating to existing relationship between independent directors and corporate performance. On the one hand, Fosberg (1989), Caselli and Gatti (2007), Hermalin and Weisbach (1991), Bhagat and Black (2002) find no relationship between the proportion of outsider (or independent) directors and firm performance, measured by sales, ROE, Tobin’s Q, ROA, asset turnover and stock returns. It seems that independent boards (i.e. board composed in majority by independent directors) do not affect firm performances which are probably influenced by other endogenous factors (such as corporate strategy, efficacy of decision-making process) and exogenous ones (market, competitors, customers, law).

On the other hand, scholars (Brickley et al., 1994) find a positive relation between the proportion of outside directors and corporate performance. Furthermore, Anderson et al. (2004) show that the cost of debt, as proxy by bond yield spreads, is inversely related to board independence. Consistent with this research, Brown and Caylor (2004) find that boards with higher number of independent directors have higher returns on equity, higher profit margins, larger dividend yields, and larger stock repurchases. Rosenstein and Wyatt (1990) suggest that shareholder wealth is influenced by the proportion of outside directors by documenting a positive stock price reaction at the announcement of the appointment of an additional outside director. This means that the monitoring and
controlling role on management provided by Independent directors is fundamental in order to prevent likelihood of financial statement fraud (Beasley, 1996) and increase shareholder benefit (Byrd and Hickman, 1992). In the same vein, Del Guercio et al. (2003) reveal that smaller boards with a higher proportion of independent directors are more effective.

It is interesting to note that only a fraction of empirical research has found negative relationship between the number of independent directors and firm performance (Klein, 2002; Khumar and Singh, 2012).

It emerges that there are still no clear benefits of independent directors on firm performance. «These mixed results may be reflective of a corporate culture wherein corporate boards are controlled by management and the presence of outside independent directors has no discernible impact on management decisions» (Petra, 2005). However, most empirical research suggests that outside independent director play an important and central role within board of directors. Those studies have shown a positive relationship between independent directors and firm performance.

Taken as whole, these internationally-based results are consistent with Fama (1980) who claimed that a higher proportion of Independent directors on Board would result in more effective monitoring of boards and limit managerial opportunism. This leads to an enhancement of economic and financial performance of firms (Waldo, 1985; Vancil, 1987). Table 5.2 shows prior international literature about the relationship between Independent Directors and corporate performance.

The preceding discussion leads to our second research hypothesis:

\textit{Hp 2: Firm performance exhibits a positive association with the proportion of independent directors on the board}
<table>
<thead>
<tr>
<th>Author</th>
<th>Publication Year</th>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Sample</th>
<th>Year(s) of analysis</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnhart and Rosenstein</td>
<td>1998</td>
<td>Independent directors</td>
<td>Tobin’s Q</td>
<td>321 firms from Standard and Poor’s 500 dataset</td>
<td>1990</td>
<td>Positive relationship</td>
</tr>
<tr>
<td>Baysinger and Butler</td>
<td>1985</td>
<td>Independent directors</td>
<td>Tobin’s Q</td>
<td>US 266 firms</td>
<td>1970-1980</td>
<td>No relationship</td>
</tr>
<tr>
<td>Bhagat and Black</td>
<td>2002</td>
<td>Independent directors</td>
<td>Tobin’s Q, ROA, Ratio of sales to assets, Market adjusted stock price</td>
<td>934 large US public corporations</td>
<td>1988-1991</td>
<td>No relationship</td>
</tr>
<tr>
<td>Researcher(s)</td>
<td>Year</td>
<td>Methodology</td>
<td>Sample Description</td>
<td>Time Period</td>
<td>Relationship</td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
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<td>-----------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Brickley et al.</td>
<td>1994</td>
<td>Independent directors Stock market reaction</td>
<td>247 firms adopting poison pills</td>
<td>1984-1986</td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>Campa, Marra</td>
<td>2008</td>
<td>Independent directors ROI</td>
<td>Italian Listed companies</td>
<td>2005-2006</td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>Cotter et al.</td>
<td>1997</td>
<td>Independent directors Target shareholders gains; tender offer premium</td>
<td>169 tender offer target – traded on NYSE, AMEX or NASDAQ</td>
<td>1989-1992</td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>Daily and Dalton</td>
<td>1992</td>
<td>Independent directors ROA, ROE, Price-Earnings ratio</td>
<td>100 fastest-growing small publicly held US firms</td>
<td>1990</td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>De Andres and Vallelado</td>
<td>2008</td>
<td>Independent directors market-to-book value ratio</td>
<td>69 commercial banks from six OECD countries (Canada, the US, and the UK, Spain, France, and Italy)</td>
<td>1996–2006</td>
<td>Inverted U-shaped</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Authors</td>
<td>Year</td>
<td>Type of Research</td>
<td>Variables</td>
<td>Sample Size</td>
<td>Time Period</td>
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</tr>
<tr>
<td>54.</td>
<td>Dulewicz and Herbert</td>
<td>2004</td>
<td>Independent directors</td>
<td>Cash Flow Return on Total Assets, Sales Return</td>
<td>137 Manufacturing, Transport, Service Sector UK firms</td>
<td>1997</td>
</tr>
<tr>
<td>58.</td>
<td>Ezzamel and Watson</td>
<td>1993</td>
<td>Independent directors</td>
<td>Return on capital employed</td>
<td>113 UK companies</td>
<td>1982-1985</td>
</tr>
<tr>
<td>59.</td>
<td>Hermalin and Weisbach</td>
<td>1991</td>
<td>Independent directors</td>
<td>Tobin’s Q</td>
<td>142 NYSE companies</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Authors</td>
<td>Year</td>
<td>Type of Management</td>
<td>Evaluation Variables</td>
<td>Sample Size</td>
<td>Period</td>
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</tr>
<tr>
<td>66.</td>
<td>Laing and Weir</td>
<td>1999</td>
<td>Independent directors</td>
<td>ROA</td>
<td>115 randomly selected UK listed companies</td>
<td>1992, 1995</td>
</tr>
<tr>
<td>68.</td>
<td>O’Connell and Cramer</td>
<td>2009</td>
<td>Independent directors</td>
<td>TOBIN’S Q, ROA, RET</td>
<td>Iris listed companies</td>
<td>2001</td>
</tr>
</tbody>
</table>

RET = market-based measure. It is calculated as the change in stock price plus dividend for the period.
| 74. | Yermack | 1996 | Independent directors | ROA, ROS, Tobin’s Q | Us Large companies | 1984-1991 | Negative relationship |
The impact of Non-executive directors on firm performance

Non-executive directors, with a business relationship related to the firm they serve have been defined as “grey directors” or affiliated directors (Daily et al. 1998) because they are both non-executive and non-independent (Baysinger and Butler, 1985). Such directors could be management consultants, legal counsel, bankers with any designation, including executive director, CEO, chairman, or member of any committee (Clifford and Evans, 1997; Ameer et al., 2010). Furthermore, according to Yermack (2004) “Directors who sit on a large number of boards also are more likely to become grey, probably because they represent greater possibility for future interlocks with the CEO”.

Baysinger and Butler (1985) and Daily et al. (1998) reckon that grey directors are less objective and less effective monitors than independent directors. They often have conflicts of interests because of their current and future business relationship with the firm which could reduce their role to discipline and monitor (Arosa et al., 2010). On the other hand, Corbetta and Salvato (2004a, 2004b) these directors are placed to the board in order to provide other skills, perspectives and competence. Hence, both grey and independent directors exert positive influence on firm performance (Anderson and Reeb, 2004).

The majority of empirical studies fail to delineate the difference between non-executive non-independent (grey) directors and outside independent directors. Hence, little research focuses its attention on non-executive/grey/affiliated directors. It emerges that in some cases the relationship between grey directors and corporate performance is ambiguous or insignificant (Choi et al., 2007), even though some scholars (Arosa et al., 2010) unveil a positive effect of affiliated directors on performance.

Puchniak (2003) reckons that grey directors are at least as effective as completely independent directors. Puchniak (2003) claims also that “what grey directors lack in independent monitoring they make up for in the incentive to monitor”. Nottage et al. (2008) argue that those affiliated directors who have a business relationship with the firm or key officers in the company are able to have access to better information which, in turn, increases their ability to monitor. However, the affiliation that they have may breach the monitoring role as specified agency theory for outside directors (Wang and Oliver, 2009). Table 5.3 outlines some empirical research about the relationship between Non-executive directors and firm performance.
Based on the issues presented above, we hypothesize:

*Hp 3: Firm performance exhibits a positive association with the low proportion of Non-executive directors on the board.*
<table>
<thead>
<tr>
<th>Author</th>
<th>Publication Year</th>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Sample</th>
<th>Year(s) of analysis</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arosa et al.</td>
<td>2010</td>
<td>Non-executive directors</td>
<td>ROA, ROE</td>
<td>369 Spanish family firm</td>
<td>2006</td>
<td>Positive relationship</td>
</tr>
<tr>
<td>Choi et al.</td>
<td>2007</td>
<td>Non-executive directors</td>
<td>Tobin’s Q</td>
<td>457 Korean listed companies</td>
<td>1999-2001</td>
<td>Ambiguous relationship</td>
</tr>
<tr>
<td>Kumar and Singh</td>
<td>2013</td>
<td>Non-executive directors</td>
<td>Tobin’s Q</td>
<td>200 Indian listed companies</td>
<td>2008</td>
<td>Negative relationship</td>
</tr>
</tbody>
</table>

Table 5.3 *International Empirical Research on Non-Executive Directors*
The impact of Executive directors on firm performance

Board of directors consist in outside/independent directors, non-executive directors and executive ones, but discussions on Board are always centred on role, and the effects of independent directors. Hence, literature about benefit of inside directors’ role is limited.

Executive directors are important because they provide information to top management and outsiders (Mace, 1971). Two opposing views of the role and efficacy of inside directors exist. According to the first view, inside and outside directors play a role in monitoring Chief Executive Officer (CEO). Thus, if insiders play an effective monitoring role and decrease information asymmetries (Adams et al., 2005; Harris and Raviv, 2008), they could enhance corporate governance structure and board decision making (Acharya et al., 2009) which could lead to better firm performance (Shakir, 2008). Nicholson and Kiel (2007) argue that «inside directors live in the company they govern, they understand the business better than outside directors and so can make better decisions». The contrasting point of view outlines that executive directors are influenced by CEO, because the latter who is the highest-ranking executive can appoint executives. Given this relationship, insiders may not contribute effectively to a monitoring of CEO. Furthermore, they are unlikely to take a stance in the boardroom and be recalcitrant to take position again CEO decision. Raheja (2005) maintains that Executive directors are an important source of firm-specific information for the board, but perhaps do not monitor CEO due to lack of independence from the latter and private benefits. Sirmans et al. (2006) identify a negative relationship between performance and management change from a period of three months prior to the change of in management.

The above research shows that a relationship exists between inside directors and firm performance (Table 5.4). Parallel with previous hypotheses, the following is predicted:

*Hp 4: Firm performance exhibits a negative association with the proportion of Executive directors on the board.*
Table 5.4 *International Empirical Research on Inside Directors*

<table>
<thead>
<tr>
<th>Author</th>
<th>Publication Year</th>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Sample</th>
<th>Year(s) of analysis</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily and Johnson</td>
<td>1997</td>
<td>Inside directors</td>
<td>ROE, ROA, risk-adjusted</td>
<td>100 firms selected <em>Fortune 500</em> firms</td>
<td>1987-1990</td>
<td>No significant relationship</td>
</tr>
<tr>
<td>Kesner</td>
<td>1988</td>
<td>Inside directors</td>
<td>Profit margin, ROE, ROA, earnings per share, stock market performance, total return to investors</td>
<td>250 firms from <em>Fortune 500</em> companies</td>
<td>1983</td>
<td>Positive relationship</td>
</tr>
<tr>
<td>Mallette and Fowler</td>
<td>1992</td>
<td>Inside directors</td>
<td>ROE, Debt to Equity Ratio, Net sales</td>
<td>714 US Industrial manufacturing firms</td>
<td>1988</td>
<td>No significant relationship</td>
</tr>
<tr>
<td>Molz</td>
<td>1988</td>
<td>Inside directors</td>
<td>ROE, ROA, Total Return to Shareholders</td>
<td>50 firms from the <em>Fortune 500 Industrial</em></td>
<td>1983</td>
<td>No significant relationship</td>
</tr>
</tbody>
</table>
The impact of CEO Duality on firm performance

CEO duality (whether CEO simultaneously serves as board chairman) has become a topic subject to particular analysis (Lorsch and MacIver, 1989; Brickley et al. 1994; Mallin, 2010) in international debate on the impact of the separation of ownership and control. «Interest in duality has emerged primarily because it is assumed to have significant implications for organizational performance and corporate governance» (Baliga et al., 1996)

CEO duality is a double-edged sword (Finkelstein and D’Aveni, 1994). Two main opposite schools exist. According to academic literature, the arguments against dual leadership can be summarized in three classes of evidence, which are closely connected each other: control system, independence of the board, decision making. With respect to control system, merging the role of chairman and CEO board means that capacity to monitor and oversee management is decreased as a result of lack of independence and conflict of interest (Lorsch and Maclever, 1989; Fizel and Louie, 1990; Dobrzynski, 1991; Millstein, 1992; Daynton, 1984). Splitting the role of chairman and CEO could be a corporate governance initiative that could maximize the effectiveness of the control system and exemplify the conflict of interests (Yang and Zhao, 2013). Indeed, the board is the apogee of the decision control system which could mitigate the agency problems due to separation of ownership and control (Fama and Jensen, 1983). For this reason, CEO has decision rights but not control rights over shareholder capital, the latter has conflicting interests and does not always play to maximize shareholder value. Strictly connected with control system problem is the independence of the board. Indeed, if the monitoring role is poor, board independence is hampered, due to the high influence of management. The board cannot ‘discipline the management appropriately as it is the management who controls the board and will over-rule such initiatives’ (Abdullah, 2004). The independent structure of board is important to help companies to avoid some crises (Lorsch, 1989), and to foster more objective assessment (Boyd, 1995). In a similar vein, Baliga et al. (1996) and Dalton et al. (1998) suggest that CEO duality seriously damages the independence of the board. Indeed, when only one person leads a company, the role of independent directors becomes ‘hypothetical’ (Rechner and Dalton, 1989; Daynton, 1984). In the words of Rechner (1989), dual leadership structure is «likely to function as rubber stamp board given the total control of the CEOs». The two above issues are closely connected with the final evidence class, decision making process. When one person is in charge of both tasks, managerial dominance is deeply fostered because «that individual is more aligned with management than with shareholders and is likely to act to protect his or her job and enhance personal well-beings» (Mallette and Fowler, 1992: 1016). However, if there is a
lack of management domination, decision making is more effective and aligned to shareholder interests. This means that a more effective governance could be provided in terms of minor hostile takeovers (Morck et al., 1989), the failure adoption of ‘poison pills’ (Mallette and Fowler, 1992) and higher firm performance (Shleifer and Vishny, 1997).

The contrary school of thought views CEO duality as a leadership structure which could lead to many benefits for firms in terms of leadership, cost savings, and decision making process. Regarding leadership, two top executives (CEO non-duality) could introduce potential conflict at the top, and thus damage firm performance (Li and Li, 2009). Furthermore, separation of CEO and chairman posts could create confusion among employees over who is in charge of running firms (Goodwin and Seow, 2000). Hence, consolidated power provides clarity about leadership and direction to the company, «which promote[s] effective dealing with external parties» (Dalton et al., 1998). CEO has better coordination of board activities and actions, so he or she is able to enhance and improve decision making process. In other words, CEO duality facilitates more timely and more effective decision making (Peng et al., 2009); hence, decisions could be reached faster (Abdullah, 2004) and strategies could be implemented more swiftly. This is also due to the fact that CEO «may often have the best specific knowledge of the strategic challenges and opportunities facing the firms» (Jensen and Meckling, 1995). Dual leadership structure provides cost savings by eliminating information transferring and processing costs connected with non-CEO chairman (Yang and Zhao, 2013; Goodwin and Seow, 2000).

Several studies have examined the impact of CEO duality on corporate economic-financial performance (Mueller and Barker, 1997; Lam e Lee, 2008; Abatecola, Farina and Gordini, 2010). Three contrasting views emerge from the extant literature on the effect of CEO duality on firm performance. Some research (Boyd, 1995) reveals a positive relationship between CEO duality and accounting-based performance measure (i.e. ROA, ROE). Similarly, Donaldson and Davis (1991) find CEO duality to be positively associated with higher levels of ROE. However, according to some research (Daily and Dalton, 1992; Elsayed, 2007) it is not possible to establish a relationship between CEO duality and financial performance (i.e. ROA, ROE, price-earnings ratio). In the same vein, Certo et al. (2001) – examining IPO-stage firms – found no relationship between CEO duality and IPO under-pricing. Finally, several studies have underlined the fact that splitting the role has indeed led to significantly higher financial performance (Peel and O'Donnell, 1995). Some related studies (Palmon and Wald, 2002; Pi and Timme, 1993; Rechner and Dalton, 1991) focusing on US and UK firms found a negative relationship between CEO duality and firm performance; the latter is
based both on accounting measures (i.e. ROA, ROE, ROI) and market-based measures (abnormal accruals).

The key findings of existing empirical studies are reported in Table 5.5.

In line with the core findings from prior international literature, we predict that CEO duality is negatively associated with firm performance.

Hp 5: Firm performance exhibits a negative association under leadership structure that combines the roles of the CEO and the Board’s President.
### Table 5.5 International Empirical Research on CEO duality

<table>
<thead>
<tr>
<th></th>
<th>Author</th>
<th>Publication Year</th>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Sample</th>
<th>Year(s) of analysis</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>89.</td>
<td>Abatecola et al.</td>
<td>2010</td>
<td>CEO duality</td>
<td>---</td>
<td>40 quantitative articles published in 26 journals</td>
<td>1985-2008</td>
<td>Positive relationship</td>
</tr>
<tr>
<td>91.</td>
<td>Baliga et al.</td>
<td>1996</td>
<td>CEO duality</td>
<td>Daily excess returns of stocks are selected as they are measures of organizational performance</td>
<td>Fortune 500 companies</td>
<td>1980-1981</td>
<td>Superior performance for firm Split CEO-chair position. Positive relationship 1) the market is indifferent to changes in a firm’s duality status, 2) the duality-structure has no significant effect on the firm’s operating performance; 3) the duality-structure has no significant effect on the firm’s long-term performance</td>
</tr>
<tr>
<td>92.</td>
<td>Ballinger and Marcel</td>
<td>2010</td>
<td>CEO duality</td>
<td>ROA, Tobin’s Q, bankruptcy</td>
<td>540 CEO succession events at S&amp;P 1500 firms</td>
<td>1996-1998</td>
<td>Poor negative effect of interim CEO succsions</td>
</tr>
<tr>
<td>93.</td>
<td>Berg and Smith</td>
<td>1978</td>
<td>CEO duality</td>
<td>ROI, ROE, stock price</td>
<td>Fortune 200 firms</td>
<td>---</td>
<td>Negative relationship of duality with ROI, and no relation with ROE or change in stock price</td>
</tr>
<tr>
<td>96.</td>
<td>Cannella and Lubatkin</td>
<td>1993</td>
<td>CEO duality</td>
<td>ROE</td>
<td>472 succession events</td>
<td>1971-1985</td>
<td>Weak positive relation of duality with ROE</td>
</tr>
<tr>
<td>100.</td>
<td>Daily and Dalton</td>
<td>1994a</td>
<td>CEO duality</td>
<td>bankruptcy</td>
<td>114 publicly traded US manufacturing, retail, and transportation firms</td>
<td>1972-1982</td>
<td>Negative effect on performance</td>
</tr>
<tr>
<td>No.</td>
<td>Author(s) and Year</td>
<td>Type of Study</td>
<td>Variables</td>
<td>Sample Description</td>
<td>Year(s)</td>
<td>Main Findings</td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>101</td>
<td>Daily and Dalton 1994b</td>
<td>CEO duality</td>
<td>bankruptcy</td>
<td>100 publicly traded US manufacturing, retail, and transportation firms</td>
<td>1990</td>
<td>No main effect on firm performance, but strengthened the positive effect of board independence on firm performance</td>
<td></td>
</tr>
<tr>
<td>102</td>
<td>Dalton and Kesner 1993, 1987</td>
<td>CEO duality</td>
<td>ROA, ROE, Price-Earnings ratio</td>
<td>186 small publicly traded US firm, Randomly selected of 50 large Japanese, United Kingdom and United States industrial corporations for a total sample of 150</td>
<td>1990-1986</td>
<td>CEO duality negatively related with performance 1) In Japan, it is evidently unusual for the same individual to serve as CEO and chairperson of the board. 2) This is much more frequent in United Kingdom</td>
<td></td>
</tr>
<tr>
<td>104</td>
<td>Davidson et al. 2001</td>
<td>CEO duality</td>
<td>Cumulative abnormal return</td>
<td>421 CEO succession event at 332 Businessweek 1000 firms</td>
<td>1992</td>
<td>CEO-board chair consolidation has negative effect only if heir apparent is no present</td>
<td></td>
</tr>
<tr>
<td>105</td>
<td>Dey et al. 2011</td>
<td>CEO duality</td>
<td>ROA</td>
<td>760 companies from Compustat and ExecuComp databases</td>
<td>2001-2009</td>
<td>Positive relationship</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Author(s)</td>
<td>Year</td>
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<td>Variable 2</td>
<td>Sample Size</td>
<td>Time Period</td>
<td>Summary</td>
</tr>
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</tr>
<tr>
<td>107</td>
<td>Elsayed</td>
<td>2007</td>
<td>CEO duality</td>
<td>Tobin’s Q</td>
<td>92 firms from Egyptian Capital Market Agency</td>
<td>2000-2004</td>
<td>No significant relationship</td>
</tr>
<tr>
<td>108</td>
<td>Faleye</td>
<td>2007</td>
<td>CEO duality</td>
<td>Tobin’s Q</td>
<td>3,823 US firms</td>
<td>1995</td>
<td>Dual leadership increases Tobin’s q only in complex firms</td>
</tr>
<tr>
<td>109</td>
<td>Finkelstein and D’Aveni</td>
<td>1994</td>
<td>CEO duality and board vigilance</td>
<td>ROA</td>
<td>Fortune 200 companies</td>
<td>1984 and 1986</td>
<td>This association changes with circumstances—when a vigilant board considering duality to be less desirable when firm performance is good and the CEO possesses substantial information power.</td>
</tr>
<tr>
<td>111</td>
<td>Krause and Semadeni</td>
<td>2013</td>
<td>CEO duality</td>
<td>Stock return, mean analyst rating</td>
<td>1,053 S&amp;P 1500 and Fortune 1000 firms</td>
<td>2002-2006</td>
<td>CEO-board chair separation has positive effect following negative weak performance; nut negative effect following strong performance</td>
</tr>
<tr>
<td>No.</td>
<td>Author(s)</td>
<td>Year</td>
<td>Methodology</td>
<td>Measures</td>
<td>Sample Description</td>
<td>Findings</td>
<td></td>
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</tr>
<tr>
<td>112.</td>
<td>Lam and Lee</td>
<td>2008</td>
<td>CEO duality</td>
<td>ROA; ROE; return on capital employed, market-to-book value of equity</td>
<td>Hong Kong listed companies 2003/2004</td>
<td>Positive relationship in non-family companies. No significant relationship in family companies.</td>
<td></td>
</tr>
<tr>
<td>115.</td>
<td>Palmon and Wald</td>
<td>2002</td>
<td>CEO duality announcements</td>
<td>abnormal returns</td>
<td>304 companies from COMPUSTAT 1986-1999</td>
<td>Small firms = negative abnormal returns when changing from dual to separate leadership. Large firms = positive abnormal returns.</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Author(s)</td>
<td>Year</td>
<td>Variable(s)</td>
<td>Sample Description</td>
<td>Period</td>
<td>Note(s)</td>
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<td></td>
</tr>
<tr>
<td>118.</td>
<td>Quigley and Hambrick</td>
<td>2012</td>
<td>CEO duality, ROA, stock return</td>
<td>181 CEO succession events at publicly traded US high-technology firms</td>
<td>1994-2006</td>
<td>Former CEO staying on as board chair reduced performance change following a CEO succession</td>
<td></td>
</tr>
<tr>
<td>122.</td>
<td>Worrell et al.</td>
<td>1997</td>
<td>CEO duality, Cumulative abnormal return</td>
<td>522 CEO plurality-creating events at 438 Businessweek 1000 firms</td>
<td>1972-1980</td>
<td>Consolidation of CEO and board chair roles had negative effect</td>
<td></td>
</tr>
</tbody>
</table>
Auditing processes

Corporate Governance activities should be amply supported by control systems which should be effective, pervasive, and integrated monitoring mechanisms. In particular, we highlight auditing systems which are both internal and external and whose characteristics are structured to sustain achievement of Board of Directors decisions and the related value creation. Auditing is a fundamental element within governance framework and an effective auditing function plays a key role in assisting the board to carry out its governance responsibilities (Melville, 2003). The demand for audit activities arises from the agency problems (Jensen and Meckling, 1976) connected with the separation of ownership and control of companies. Agency problems are strictly associated with the asymmetric information in the Principal-Agent contracts and conflict of interests between shareholders (Principal) and management (Agent). Thus, a third subject (auditor) may mitigate agency cost related to financial statement prepared by management. Anderson et al. (1993) claim that «The value of the auditor in the arbitration role is dependent on the auditor being sufficiently independent of management to report any detected discord between the intentions of the contracting parties and the revealed states» (see also Watts and Zimmerman, 1986; Antle, 1982).

In particular, external audit is corporate financial audits conducted on the financial statements of firms by an outside subject (i.e. a registered public accounting firm – such as Big Four – or a qualified individual auditor). External auditing is «part of the set of monitoring mechanisms available to a firm» (Anderson et al., 1993). Internal audit refers to control function set within corporate. Gray and Manson (2011) referring to internal audit speak about an ‘extended arm of management’ to ensure the efficacy of internal control systems.

Internal auditing of Italian listed companies that adopt traditional system or two-tier model is composed of audit committee and supervisory board. The former assists the board of directors in monitoring on internal controls and financial reporting. The latter supervises firm management, in particular compliance with the law and statute; it also deals with internal controls and financial reporting.

The impact of Supervisory board members on firm performance

Two-tier board system leads to a rigid institutionalized separation between the company’s management and its monitors, leading to enhanced organizational transparency (Bremert and Schulten, 2008). Board of directors conducts the day-to-day
firm management, and is accountable to both shareholders and supervisory board. Membership overlapping is not allowed between two boards to ensure the independence of supervisory board (Abdullah, 2009). Vinten and Lee (1993: 24) summarize the supervisory board’s function as follows «the determination of company policy; setting of management directors’ remuneration; approval of financial accounts; engagement in strategic decisions on investment and planning; authorization of specific commercial transactions; and the right to request and evaluate management reports on important manners». So, board of directors is bound by decisions and assessment of supervisory board and the former may require the attendance of the auditors before giving its opinion on the accounts (Collier and Gregory, 1996). In Italy, company law allows Italians companies to choose among unitary board, two-tier system and the so-called traditional system or ‘horizontal’ two-tier system. However, the most common model adopted by Italian listed company is the former.

While the monitoring role of the board has been studied extensively the advisory role has received little attention (Adams and Ferreira, 2003). In particular, existent literature focuses mainly on Board of Directors mechanisms, probably because the major studies concern UK and US companies that adopt only one-tier board system in which supervisory board is not mentioned. For this reason, it is possible to find little empirical research about the potential connection between Supervisory Board and firm performance. Andres (2008) and Bremer and Schulten (2008) find empirical evidence that a positive relationship between Supervisory Board and firm performance (i.e. Tobin’s Q, and ROA) exists. In particular, the average supervisory board director compensation is consistently connected with market and accounting based performance measures. In contrast, Postma et al. (2003) show a negative association between remuneration and size of supervisory boards (as a whole) and performance (accounting measure). Finally, Van Hamel et al. (1998) find general support for the two-tier system, however, through interviews with 25 top Dutch executives and directors different point of views emerge. Supervisory board ranges from being considered a hindrance to making a real contribution (Table 5.6).

*In summa*, according to agency theory, Supervisory Board is able to foster monitoring within the company, thus members may take a wider view because they are general officers of other organizations or firms.

We could hypothesize that:

*Hp 6: Firm performance increases in presence of high number of Supervisory board members*
Table 5.6 *International Empirical Research on the Supervisory Board*

<table>
<thead>
<tr>
<th>Author</th>
<th>Publication Year</th>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Sample</th>
<th>Year(s) of analysis</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bremert and Schulten</td>
<td>2009</td>
<td>Supervisory Board</td>
<td>ROA, Tobin’s Q</td>
<td>160 German listed companies</td>
<td>2006-2007</td>
<td>Positive relationship</td>
</tr>
<tr>
<td>Postma et al.</td>
<td>2003</td>
<td>Supervisory Board</td>
<td>ROA, ROS, ROE,</td>
<td>94 Dutch listed non-financial</td>
<td>1996</td>
<td>Negative relationship (size and remuneration)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>market to book</td>
<td>mainly manufacturing) firms</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>value of equity;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schilling</td>
<td>2001</td>
<td>Supervisory Board</td>
<td>---</td>
<td>100 members of supervisory and</td>
<td>2000</td>
<td>Ineffective Supervisory Board</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>executive boards of major German companies</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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The impact of Audit Committee on firm performance

The audit committee has a critical role within the framework of corporate governance, because its role concerns the overseeing and monitoring of board and the internal and external audit processes (Braiotta, 2004). Furthermore, it has assumed an increasingly important role for the assurance of corporate governance as the audit committee is expected to oversee financial reporting process, internal control system, as well as the work of the internal and external auditors (Hermanson and Rittenberg, 2003).

Two main schools of thought exist regarding the benefit of Audit Committee within corporate governance mechanisms. On the one hand, researchers maintain that mechanisms such as audit committees are needed in order to help management control company (Sierra Garcia et al., 2012). Indeed Gramling et al. (2004) state that corporate governance mechanisms are defined by at least four mechanisms, including Audit Committees. Hence, the former has become part of governance paradigm with «its own right, driving, and being driven by, a logic of auditability, characterized by an increasingly precise codification of the operational dimensions of the audit task and a reliance on formal, externally verifiable processes system» (Mennicken and Power, 2013; Power 1997). On the other hand, some scholars reckon that audit committees exist only for «the purposes of appearances rather than for the enhancement of stockholders control [over] management» (Menon and Williams, 1994). In the same vein, Sommer (1991) highlights that appointing an audit committee does not necessarily mean that it will be effective in providing benefits of improved financial reporting and auditing. This statement is well supported by Verschoor (1989 and 1990) who points out the ineffectiveness of the audit committees in some major company failures. Audit committee is also criticized for its lack of independence (Beasley and Salterio, 2001; Carcello and Neal, 2000).

Most empirical results highlight the fact that audit committees are «cornerstones of corporate governance» Gramling et al. (2004) and these studies (Beasle and Salterio 2001) conclude that an audit committee composed of external and independent directors results in better transparency and accountability for company. Chan and Li (2008) find a positive relationship between audit committee and firm performance; other scholars (Anderson et al., 2004) show that independent audit committees have lower debt financing costs. However, other minor empirical research finds that, neither negative relationship nor any other type of connection exists between audit committees and firm performance, probably due to the fact that «Enhanced control limits the risk position of a company and narrows the room of maneuver for the management» (Bremert and Schulten, 2009: 36). Furthermore, some scholars have studied the relationship between the presence of audit committee and likelihood of fraud; mixed results have been
yielded by literature. On the one hand, Beasley (1996) finds that a higher proportion of independent directors is associated with a lower likelihood of fraud. On the other hand, Abbott and Park (2000) do not find any significant correlation between fraud and the percentage of outside directors within Audit Committee.

Table 5.7 shows empirical research providing evidence of the connection between audit committee and firm performance.

In line with the core findings from prior international literature, we predict that:

$Hp 7$: Firm performance increases in presence of Audit Committee
Table 5.7 *International Empirical Research on Audit Committee*

<table>
<thead>
<tr>
<th>Author</th>
<th>Publication Year</th>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Sample</th>
<th>Year(s) of analysis</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>129. Anderson <em>et al.</em></td>
<td>2004</td>
<td>Audit Committee</td>
<td>Debt financing costs, Tobin’s Q</td>
<td>Standard &amp; Poor’s 500 firms</td>
<td>1992-1999</td>
<td>Independent audit committees have lower debt financing costs</td>
</tr>
<tr>
<td>130. Bremert and Schulten</td>
<td>2009</td>
<td>Audit Committee</td>
<td>ROA, Tobin’s Q</td>
<td>160 German listed companies</td>
<td>2006-2007</td>
<td>Negative relationship</td>
</tr>
<tr>
<td>131. Brown and Caylor</td>
<td>2004</td>
<td>Audit Committee</td>
<td>dividend yield</td>
<td>US listed companies</td>
<td>2002</td>
<td>Independent audit committees are positively related</td>
</tr>
<tr>
<td>132. Brown and Caylor</td>
<td>2004</td>
<td>Audit Committee</td>
<td>operating performance</td>
<td>US listed companies</td>
<td>2002</td>
<td>Not positive relationship</td>
</tr>
<tr>
<td>133. Chan and Li</td>
<td>2008</td>
<td>Audit Committee</td>
<td>Tobin’s Q</td>
<td>First top 200 publicly traded Fortune 500 companies</td>
<td>2000</td>
<td>Positive relationship</td>
</tr>
<tr>
<td>135. Managena and Pike</td>
<td>2005</td>
<td>Audit Committee</td>
<td>size</td>
<td>Interim disclosure index</td>
<td>262 UK listed companies</td>
<td>2001-2002</td>
</tr>
</tbody>
</table>

Several research about AC and independency, financial reporting process, monitoring role exist (Aldamen *et al.*, 2012).
The impact of Big Four on firm performance

External auditing is a fundamental process and involves examining financial statements and testing the underlying accounting records of the firm (Braiotta, 2004). The assessment is conducted by an independent external auditor who has to disclose an objective opinion regarding compliance of financial statement to auditing principles. Thus external auditors provide additional assurance both to shareholders and financial market. Indeed managers are discouraged from manipulating accounting statements and this increases confidence in capital providers, therefore increasing liquidity of capital market (Mennicken and Power, 2013). For these reasons Coffee (2005) considers external auditing as a clear example of gatekeeper defined as «some form of outside or independent watchdog or monitor, someone who screens out flaws or defects or who verifies compliance with standards or procedures».

There is extensive academic literature that studies audit quality connected with the presence of the so-called Big Four (Francis and Yu, 2009). Despite some limitations (Power, 1997), most of these studies classify the largest international accounting firms (i.e. the Big Four firms) as high quality auditors (De Angelo, 1981; Palmrose, 1988). Beasley et al. (2005) state that «it is possible that organizations committed to engaging such high quality auditors are also more committed to risk management». Hence, we could argue that if audit quality is enhanced, the risk of financial misstatement, frauds is minimized, encouraging potential shareholders to invest in company and thus fostering firm value.

This leads to our hypothesis stated in alternative form:

\[ Hp 8: \text{Firm performance increases in presence of the so-called Big Four} \]

5.5 New model construction

As discussed above, the objective of this study is to build a valid econometric model according to literature review that measures the association between, on the one hand Board of Directors structure and Control mechanisms, on the other hand firm performance.

Performance Variables (Dependents one). Two different measures of firm performance are used in the present research, Tobin’s Q and ROE which according to the mainstream can capture different aspects of corporate performance. Tobin’s Q is the ratio of the firm market value to the replacement cost of its assets (Lindenberg and Ross, 1981). ROE is
a «popular measure, primarily because it takes into account a firm’s liabilities and pays homage to the dispersed ownership represented by shareholders» (Hoque, 2006). ROE is a profitability-based measure of firm performance which is calculated by dividing firm profits before taxes by its total equity. Overall, ROE and Tobin’s Q ‘may be viewed as complementary rather than competing metrics which capture different aspects of firm performance’ (O’Connel and Cramer, 2009).

**Variable of interests (Independents one).** Eight variables that will be used to test our six final hypotheses are board size, Independent directors, Executive directors, Non-executive directors, CEO duality, Supervisory board size, Audit Committee and Big Four. In common with international studies in the field, board size is measured as the sum of the number of Independent, Executive and Non-executive directors. Independent directors, Executive directors, Non-executive directors are the percentage of those directors on the board. CEO duality is a binary variable which takes a value of one if it is found that CEO also serves as the chairman (i.e. CEO duality), and a value of zero otherwise (Boyd, 1995; Daily and Dalton, 1994; Zajac and Westphal, 1995; Conyon and Peck, 1998). Supervisory board size is the number of its members. Audit committee is a dummy variable that takes on a value of one if it is established within company or otherwise a value of zero. Big Four is a dummy variable. It takes on a value of one if firm auditing belongs to one of Big four, and a value of zero otherwise.

**Control Variable.** Different control variables have been included in the study. These variables have been considered in model in order to remove the problem of endogeneity. These variables have been used in many prior studies, and are correlated with firm performance (Hermalin and Weisbach, 1991; Vafeas and Theodorou, 1998; Bonn et al., 2004; Boone et al., 2007; Yammeeesri and Herath, 2010). In particular, we consider Firm size measured as the natural logarithm of firm’s total assets (Eisenberg et al., 1998); Firm Leverage measured by the ratio of total debt to total asset (Baliga et al., 1996), Capital intensity which is utilized to express firm growth and is measured by the ratio of net fixed asset to total assets (Elsayed and Paton, 2009); Year of acceptance code of corporate governance which is the period from acceptance date to the years of analysis; finally ROA which is computed by dividing firm profits before taxes by its total assets (Hsu, 2010).

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41 It is worth noting that at the beginning of the present research we hypothesized that eight independent variables would have been necessary in order to build our econometric value. However, studying international literature it has emerged that it is not possible to find effective evidence that Board of Director size and Supervisory Board size affect firm performance. For this reason, our econometric model contains six independent variables rather than eight.
Table 5.8 summarizes all variables included in our model with their respective definitions.

Table 5.8 *Variables Definitions*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Tobin’s Q</td>
<td>Sum of market capitalization plus long and short-term debt over the book value of total assets</td>
</tr>
<tr>
<td>ROE</td>
<td>Profit for the year over shareholders’ equity</td>
</tr>
<tr>
<td>Board size</td>
<td>Sum of independent, executive and non-executive directors</td>
</tr>
<tr>
<td>Independent directors</td>
<td>The percentage of Independent directors on the board</td>
</tr>
<tr>
<td>Executive directors</td>
<td>The percentage of Executive directors on the board</td>
</tr>
<tr>
<td>Non-executive directors</td>
<td>The percentage of Non-executive directors on the board</td>
</tr>
<tr>
<td>CEO duality</td>
<td>Dummy variable. 1 = CEO duality; 0 = CEO non-duality</td>
</tr>
<tr>
<td>Supervisory Board</td>
<td>Number of supervisory board members</td>
</tr>
<tr>
<td>Audit Committee</td>
<td>Dummy variable. 1 = exists; 0 = not exist</td>
</tr>
<tr>
<td>Big Four</td>
<td>Dummy variable. 1 = Big Four; 0 = Not Big Four</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td>Natural log of total asset</td>
</tr>
<tr>
<td>Leverage</td>
<td>Total liabilities/total asset</td>
</tr>
<tr>
<td>Capital intensity</td>
<td>Fixed asset/total asset</td>
</tr>
<tr>
<td>Year of acceptance code</td>
<td>Period from acceptance date to the years of analysis</td>
</tr>
<tr>
<td>of corporate governance</td>
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<tr>
<td>ROA</td>
<td>Profit before interest and tax over total assets</td>
</tr>
</tbody>
</table>
5.6 Variables

Before presenting and discussing our results, it is important to highlight that in our model we consider different variables, related to the board of directors, than those described in chapter 3. Table 5.9 shows those differences.

Table 5.9 Comparison between variables

<table>
<thead>
<tr>
<th>BOARD OF DIRECTORS FEATURES</th>
<th>Chapter 3</th>
<th>Chapter 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functions</td>
<td>-----</td>
<td>Board size</td>
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<td>Board size</td>
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<td>Board composition</td>
<td>Board composition</td>
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<td>IDs</td>
<td>IDs</td>
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<tr>
<td>NEDs</td>
<td>NEDs</td>
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<tr>
<td>EDs</td>
<td>EDs</td>
<td></td>
</tr>
<tr>
<td>CEO duality</td>
<td>CEO duality</td>
<td></td>
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<tr>
<td>Audit committee</td>
<td>Audit committee</td>
<td></td>
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<tr>
<td>Nomination committee</td>
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<tr>
<td>Remuneration committee</td>
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<tr>
<td>Disclosure</td>
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<tr>
<td></td>
<td>Supervisory Board</td>
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<tr>
<td></td>
<td>Big Four</td>
<td></td>
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</tbody>
</table>

First of all, we notice that the variable “board function” is presented in chapter 3 but not in chapter 5, so it is not mention in our model. The reason lies in the fact that we seek to measure the relationship between board mechanisms and firm performance, and board tasks are not measurable and it cannot be tested. Thus, we dismiss that variable, even if it is essential to draw board functions based on codes of corporate governance and international theories. Secondly, we do not consider in our econometric model both nomination and remuneration committees, because they do not reflect the purpose of the present research. Indeed, we are particularly interested to examine how boards and their monitoring mechanisms can impact on firm performance. This is the same reason for which we decide, consistent with literature, to focus on Supervisory and Big Four which are not described in chapter three. Indeed, they could be essential monitoring “device” as well as the board. However, not all codes of best practice recommend to set up
supervisory board (only Italian, German codes) and to choice Big Four as external auditor.

5.7 Findings

In the following section, descriptive statistics (mean, median, minimum, maximum, standard deviation and variance) for all variables (i.e. dependent, independent and control ones) is presented. Moreover, we present the results based on fixed-effect regression with robust coefficient. In appendix other models tested are presented, in particular there are Pooled OLS and random-effects models, Hausman and Breusch-Pagan tests.

5.7.1 Descriptive statistics and Preliminary analysis

The population consists of all Italian companies listed in STAR segment at Italian Stock Exchange (i.e. 54 firms) for over the period of 2005-2007. Our panel data counts 150 globally observations, thus it means that we have dropped some companies for the reasons mentioned on the Chapter 4. It follows that we have an unbalanced panel data.

Table 5.10 presents the descriptive statistics of all variables.
The mean (median) value of firm performance measured by Tobin’s Q is 1.673846 (1.39) with a range of 0.57 to 7.19, suggesting that the majority of firms have low performance. Tobin’s Q value from 0 to 1 is considered as a poor performance, and it may indicate that the stock is undervalued (Fauzi and Locke, 2012). We have 143 out of 150 observations, it means that 7 are missing. As far as the second firm performance measure (i.e. ROE), the mean (median) is 11.19642% (12.35%) with a range from -36.02% to 50.58%, resulting that shareholders of the majority of firms gain 11 € for each 100 € invest in that company. In addition, only 19 observations out of 148 present a negative ROE. It is interesting to notice that the majority of our population firms
(44%) present a ROE included from 12% to 30%; whereas the 36% of the firms counts a ROE ranged from 0.1% to 11.9%. Missing companies position themselves at the antipodes, in particular the 13% of the firm has ROE with a range of -36.02% and 0%, on the other hand the top performing companies (i.e. ROE between 30% and 50.58%) are 7%. It means that before the financial crisis outbreak, companies of our population register ROE medium-high, thus it plausible to assume that apparently there are not still evident signs of crisis in the period 2005-2007.

Board size in Italian listed companies ranges from 5 to 14 directors, with 8.96 (9) being the average (median). Empirical research by Lipton and Lorsh (1992) suggest that a board composed of around 8 or 9 members is the optimum in terms of monitoring, so board members for the present population would appear to be within the range of their suggested target. The mean board size is below 11.67 reported by De Andres et al. (2005) for 10 OECD countries, but is smaller than 14 reported by (Allegrini, and Bianchi Martini, 2006) for all Italian listed companies. It is interested to notice that the board size of the present population appears to be generally larger than that of US companies (Linck et al., 2008) which is 7.5, and on the other hand it appears to be larger than the 8.07 reported by (Vafeas and Theodorou, 1998) for the UK.

Examining the relationship between the mean of ROE for different board sizes (Figure 5.11), ROE increases until it reaches a maximum of 6 directors and declines with 7. Moreover, we observe increases in profitability even for board size of 8, 11 and 12 members, but ROE decreases almost abruptly afterwards. This pattern of ROE and board size is similar to the pattern illustrated by Yermack (1996), Eisenberg, Sundgren and Wells (1998) and Mak and Yuanto (2003), and Shakir (2008), although they consider Tobin’s Q instead of ROE.

Figure 5.11 ROE and Board Size
The range of non-executive directors sitting on board is from 0 to 9, with an average of 3. When compared to the average of board size of 8.96, non-executive directors appear to be 33.3%. As regarding independent directors, they range from 1 to 6, with a mean of 2.99. It means that independents, non-executives, as well as executives represent on average 33.3% of board size. Two issues are relevant to point out. Firstly, the mean percentage of independents are similar than the 39% reported by Vafeas and Theodorou (1998) for the UK; even though in the recent year the proportion of independents in the UK has considerably risen (Pye, 2000). Indeed, De Andres et al. (2005) show a mean proportion of outsiders of 50% for UK companies. Secondly, Italian Code of Corporate Governance (2006) recommends an «an adequate number» of independent directors. Is the 33% of independents an adequate number? Probably a unique and correct answer does not exist, it may depend on various factors: board size, firm size, the percentage of non-executives and executives, etc. In our population, executive directors (or inside ones), exactly like outsiders are on average 2.99, ranging from 1 to 6.

It is interesting to notice that if we consider simultaneously board size and independent directors, we find that larger board size higher number of independent directors, even if 56.25% of firms having board size between 10-14 members have 3 outsiders (which is the mean of independent directors). More in detail, we divide independents into three main categories, if they are one or two within board of directors they belong to first category, if they are three (i.e. the mean) or four belong to the second one, finally if they are five or six they belong to the third one. On the other hand, based on our data we also divide board size into three main groups: small (5-7 members), medium (8-10 members) and large (11-14 members) size. Table 5.12 shows the result. 26% of Independent directors between 1 and 2 (1st category) acts in small board of directors; whereas 44% of independent directors between 3 and 4 (2nd category) plays within the medium and large size of board, respectively 8-10 and 11-14 members. Finally, 11% of independent directors between 5-6 (3rd category) acts their role within board of medium and large size. That shows that larger board size have higher number of independent directors.
Table 5.12 *Board size and Independent Directors*

<table>
<thead>
<tr>
<th>Board Size</th>
<th>Independent Directors</th>
<th>Percentage of Independent Directors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small (5-7 members)</td>
<td>1-2 (\rightarrow) 1st category</td>
<td>26%</td>
</tr>
<tr>
<td></td>
<td>3-4 (\rightarrow) 2nd category</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>5-6 (\rightarrow) 3rd category</td>
<td>0%</td>
</tr>
<tr>
<td>Medium (8-10 members)</td>
<td>1-2 (\rightarrow) 1st category</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>3-4 (\rightarrow) 2nd category</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>5-6 (\rightarrow) 3rd category</td>
<td>3%</td>
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<tr>
<td>Big (11-14 members)</td>
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<td>1%</td>
</tr>
<tr>
<td></td>
<td>3-4 (\rightarrow) 2nd category</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>5-6 (\rightarrow) 3rd category</td>
<td>8%</td>
</tr>
</tbody>
</table>

Moreover, if we consider the relationship between executives and board size, we discover that smaller board of director have more executive directors. We divide executives into three main categories, if they are one or two within board of directors they belong to first category, if they are three (i.e. the mean) or four belong to the second one, finally if they are five or six they belong to the third one. On the other hand, based on our data we also divide board size into three main groups: small (5-7 members), medium (8-10 members) and large (11-14 members) size. Table 5.13 shows results. The 2nd category of executive directors, which includes the mean of them, is 24% in correspondence with medium size of board of directors. However, bigger board of directors seems to prefer independents rather than executives. Indeed, 12% of bigger board (11-14 members) have 1 or 2 executives. So, even if the board size increases, the number of the executives remains always around 1-2 members (1st category) or 2-3 (2nd category).

Table 5.13 *Board size and Executive Directors*

<table>
<thead>
<tr>
<th>Board Size</th>
<th>Executive Directors</th>
<th>Percentage of Executive directors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small (5-7 members)</td>
<td>1-2 (\rightarrow) 1st category</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>3-4 (\rightarrow) 2nd category</td>
<td>22%</td>
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<tr>
<td></td>
<td>5-6 (\rightarrow) 3rd category</td>
<td>0%</td>
</tr>
<tr>
<td>Medium (8-10 members)</td>
<td>1-2 (\rightarrow) 1st category</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>3-4 (\rightarrow) 2nd category</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td>5-6 (\rightarrow) 3rd category</td>
<td>2%</td>
</tr>
<tr>
<td>Big (11-14 members)</td>
<td>1-2 (\rightarrow) 1st category</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>3-4 (\rightarrow) 2nd category</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>5-6 (\rightarrow) 3rd category</td>
<td>8%</td>
</tr>
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</table>
If we study the connection of non-executives and board size, we discover that the number of non-executives is directly proportional to the size of the board. Table 5.14 displays findings. We have adopted the same approach used before. So, we divide non-executives into three main categories, if they are either zero or one or two within board of directors they belong to first category, if they are three (i.e. the mean) or four belong to the second one, finally if they are five or more they belong to the third one. On the other hand, based on our data we also divide board size into three main groups: small (5-7 members), medium (8-10 members) and large (11-14 members) size. A smaller number of non-executives acts in board smaller; whereas huge number of non-executives (3rd category) plays in bigger board of directors.

Table 5.14 Board size and Non-Executive Directors

<table>
<thead>
<tr>
<th>Board Size</th>
<th>Non-Executive Directors</th>
<th>Percentage of Non-Executive directors</th>
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</thead>
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<tr>
<td>Small (5-7 members)</td>
<td>0-1-2 (\rightarrow) 1st category</td>
<td>29%</td>
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<tr>
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<td>3-4 (\rightarrow) 2nd category</td>
<td>8%</td>
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<td></td>
<td>5-more (\rightarrow) 3rd category</td>
<td>0%</td>
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<tr>
<td>Medium (8-10 members)</td>
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<td>16%</td>
</tr>
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<td></td>
<td>3-4 (\rightarrow) 2nd category</td>
<td>13%</td>
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<td></td>
<td>5-more (\rightarrow) 3rd category</td>
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<td>7%</td>
</tr>
<tr>
<td></td>
<td>3-4 (\rightarrow) 2nd category</td>
<td>5%</td>
</tr>
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<td></td>
<td>5-more (\rightarrow) 3rd category</td>
<td>18%</td>
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</table>

Furthermore, classification of the firm according to their board leadership structure (i.e. CEO duality or CEO non-duality) shows that same person holds the role of CEO and chairman (i.e. CEO duality) is about 44% of the sample. In contrast, the roles of CEO and chairperson in 56 percent of the population firms (84 out of 150 observations) are held by two separate persons. It means that the majority of the present population comply the Code of Corporate Governance recommendations and it is consistent with agency theory approach which suggests the CEO non-duality (Rechner and Dalton, 1989/1991; Daily and Dalton, 1994a).

As far as supervisory board is concerned, we notice that there is no variation within and between company, i.e. supervisory boards of every firm have three members for all the period studied (2005-2007). Indeed, according to Italian law, Italian listed companies must have a supervisory board composed by a minimum of three members. Given the
lack of variation we have to reject *Hp 6 Firm performance increases in presence of high number of Supervisory board members.*

As regarding Audit committee presence, table 5.10 shows that 94% of the firms adopt that auditing body. Some firms consider their own internal audit committee like the audit committee. This is consistent with Malguzzi (2006), Meruzzi (2011), and Allegrini and Biachi Martini (2006) claims. With respect of the presence of Big Four, the 82% of the firms rely on one of the Big Four, and the minority prefers non-Big four auditing firms.

As far as control variables are concerned, ROA registers a mean of 7.88%, with a range of -10.82% to 29.43%. So it means that management is able to yield 7.88 € for each 100€ invested on core business. The mean (median) of natural logarithm of total asset, which is considered a proxy of firm size (Eisenberg *et al.*, 1998), is 12.3 (12.33673), ranging from 10.37205 to 14.55249. Furthermore, the mean (median) value of leverage is 0.56 (.5723127), with a range of 0.0541416 to 0.9207293; whereas the mean (median) of capital intensity is 1.16 (1.095) with a range of -9.46 to 5.79. Finally, as regarding the year in which companies have adopted code of corporate governance rules is concerned, it is noteworthy to point out that firms have adopted the Italian Code for 5 years with respect of the period 2005-2007.

### 5.7.2 Discussion of results

After describing statistics descriptive of all variables, we focus our attention on models and discussing results obtained through fixed-effect models. All results obtained with OLS pooled, random-effects and fixed-effects without robustness test are shown in the appendix. Furthermore, all correlation matrixes regarding independent and dependent variables are displayed at the appendix.

Tables 5.15 and 5.16 shows results (i.e. robust coefficient) considering as dependent variables ROE and Tobin’s Q respectively.
## Table 5.15 Results Fixed-Effects Models, Robust Coefficient

### Dependent variable: ROE

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<th>(3)</th>
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ROBUST Standard Errors are in brackets. Statistically significant at 1% (***)'', 5% (**) and 10% (*)
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ROBUST Standard Errors are in brackets. Statistically significant at 1 % (***) , 5 % (**) and 10 % (*)
Table 5.17 shows summary results, highlighting confirmed and rejected research hypotheses.

### Dependent Variables: ROE

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<th>Effective sign</th>
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^:^: not statistically significant

### Dependent Variables: Tobin’s Q

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<th>Independent Variables</th>
<th>Expected sign</th>
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<th>Verification of Research Hp</th>
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<td>Board size</td>
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<td>Independent Directors</td>
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<td>Non-executive Directors</td>
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<td>CEO Duality</td>
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<td>Audit Committee</td>
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<td>Supervisory Board</td>
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^:^: not statistically significant

The impact of Board size on firm performance

**Hp1** states that *firm performance exhibits a negative association with board size.*

The empirical findings reported above suggest that a larger board size is associated with poorer firm performance, showing that an increase in the number of board members means a decrease in performance measured by ROE. According to the models (1), (2) and (3) [(6), (7) and (8)] if board size increases by one unit, company performance drops respectively by 1.86, 2.09, -1.88 [0.01, 0.06, 0.18] giving support to **Hp1**. In fact, the coefficient for board size is negative for all the models considered, which may indicate that companies with larger board size are less likely to have high performance. Our results support a statement by Jensen (1993) who deems that for a firm to be effective in its monitoring, it should have a relatively small board, since those with too many directors is «less likely to function effectively». Our results are consistent with prior research (Yermack, 1996;
Eisenberg et al., 1998; Hossain et al., 2001) which points out that the larger the board size is, the less efficient the monitoring function of the directors will be; large board size thus corresponds to a reduction in firm value and performance.

From this perspective, the Italian experience is similar to other research findings regarding different countries (for US, Cheng (2008); Huther (1997), Guest (2009) for UK (Conyon and Peck (1998); Carlin et al. (2002), for New Zealand, Kamran et al. (2006); for Norway, Boheren and Odeggard, 2001)\textsuperscript{42}.

In this vein, boards should be small to be effective, to be more cohesive and to ensure more discussion and participation (Van de Berghe and Levrau, 2004). Furthermore, our results are consistent with the Italian Code of Corporate Governance which recommends a low number of directors within the board. Our results confirm agency theory assumptions, according to which greater board size means more problems for communication, coordination, and decision-making (Eisenberg et al, 1998 and Beiner et al., 2006). Similarly, smaller size boards are more effective and organizationally functional as compared to larger boards in making decisions, and it is somewhat easier for top management (e.g. Chief Executive Officer) to control a smaller board of directors. Hence, boards with low number of directors may minimize agency costs. Our result is consistent with the findings of Ibrahim and Samad (2006), and Sajid et al. (2012); they also find that smaller board size plays a significant role in reducing agency costs. Accordingly, Florackis and Ozkan (2004) show that board size has a negative effect on agency cost proxy asset turnover, i.e. higher board size will result in higher agency costs because of reduced efficiency. Furthermore, Beiner et al. 2004 and Eisenberg et al. 1998 support findings above mentioned with evidence that board size is negatively correlated with asset turnover. These findings are consistent with previous results (e.g., Yermack, 1996, Eisenberg et al, 1998) and propose that large boards do not create value because their size worsens the free riding problem among directors relating to the monitoring of management (Lasfer, 2002).

In light of the above, our results seems to confirm that a large board of directors could lead to:

- problems of \textit{coordination and communication}, because it is difficult to arrange board meetings, reach consensus, causing slow information transferring, a less-efficient decision-making process (Judge and Zeithaml, 1992; Jensen, 1993; Bonn \textit{et al}., 2004; Cheng, 2008),
- problems in terms of \textit{board cohesiveness}, because directors could be less likely to share a common goal and to communicate with each other (Evans and Dion, 1991; Lipton and Lorsch, 1992), causing greater levels of conflict (Goodstein \textit{et al}., 1994);

\textsuperscript{42} It is interesting to notice that other studies (Andres \textit{et al}., 2005; Collins \textit{et al}., 1987) consider firm size as a control variable rather than an independent one, so they do not test directly the impact of board size on performance.
- **Free rider problems** because the cost to any individual board member of not exercising diligence falls in proportion to board size (Lipton and Lorsch, 1992, Guest, 2009);
- greater **agency costs**, because if board size increases beyond a certain number, disadvantages greatly outweigh the initial advantages of having more directors to draw on, causing a lower level of corporate performance (Lipton and Lorsch, 1992; Jensen, 1993).

Although Jensen (1993), Guest (2009), Lipton and Lorsch (1992), Airoldi and Forestieri (1998) suggest that the board should be composed respectively of 7 or 8, 3, 8 or 9, and 9 members, we do not believe that an optimum number of directors exists, because each firm is different, even though they operate within the same environment. For instance, while research might show that the optimal number of board members is 7, it is relevant to point out that this result cannot be generalized for all firms. This number may be optimal only for the specific period analysed and for those firms belonging to a determined and precise context. In fact, the codes of corporate governance do not mention any precise number, but they leave the choice of board size to the discretion of the company, without fixing any maximum number.

We have tested our models considering also Tobin’s Q. Consistent with Agrawal and Knoeber (1996); Bhagat and Black (1998); Yermack (1996); Klein (1998); Baxter (2006) and Reddy et al. (2008), Reddy et al. (2010), our results are mixed, even though not all of them are statistically significant. This means that Tobin’s Q (the measure of firm value depending on financial market) fails to capture and explain the relationship between board size and firm performance. This is probably due to the fact that Tobin’s Q reflects a more long term outlook for the firm (Mausulis and Mobbs, 2011) and means that in the long-term it does not seem plausible to evaluate the impact of board composition on firm performance because the environment is too dynamic and changeable. Our results could thus be influenced by a wide range of unstable factors (e.g. investor psychology, market forecasts) that lead to lack of significance with reference to Tobin’s Q. (Reddy et al., 2010). It is noteworthy that consistent with Elsayed (2011), our findings do not show a clear pattern, since it seems that the relationships between board size and firm performance vary with the proxy used for corporate performance and for control variables.

**The impact of Board composition on firm performance**

Some research shows that board composition varies with both firm endogenous factors and the institutional environment (e.g., Brickley and James, 1987; Denis and Denis, 1995; Hermalin and Weisbach, 1988), this suggests that imposing a homogeneous composition of the board may be optimal for some companies but not for others.
Independent, Non-Executive and Executive directors have negative and significant coefficient. This is partially consistent with literature and our research hypotheses. Indeed, we predict positive effect for Independent and Non-Executive directors on performance and on the other hand, negative impact for Executive directors.

It is noteworthy that the coefficient of board size on performance is negative as is the coefficient of independent, non-executive and executive directors. So the sum of director effect on performance is equal to board size effect, i.e. negative. Board composition results confirm Board size research hypotheses (Hp 1).

One possible explanation for this negative impact is that board composition «simply does not matter» (Hermalin and Weisbach, 1991: 111). Independent, Non-Executive and Executive directors could be equally bad (or good) at representing shareholder interests. This is consistent with top management’s control of the board-selection process (Hermalin and Weisbach, 1991).

Another plausible reason to explain why board composition has negative effects on corporate performance could be explained by considering the so called interlocking directorates (Fich and Shivdasani, 2003; Devos, 2009) which is a very rife phenomenon among Italian listed companies (Ciocca, 2007). One of the best definition of interlocking directorates is given by Mizruchi (1996: 271) who states that it is the situation «when a person affiliated with one organization sits on the board of directors of another organization». Following the recent Italian regulatory interventions43 and the Italian Code of Corporate Governance changes, there has been a reduction in the number of multiple assignments in each Board of Directors, however, the fundamental characteristics of the interlocked directors network have remained practically intact (Santella et al., 2007). Analysis across the country shows that the Italian network, like the French network and unlike the English one, has a centralized form with pervasive and redundant links that may reflect the needs of collusion rather than coordination of the business (Santella et al. 2008). In the same vein, Rinaldi and Vasta (2005) state that interlocking directorships have been a crucial characteristic of Italian capitalism for considerable time and they still prevail even after recent law changes in corporate governance. They reckon that interlocks could help consolidate and defend controlling positions in the main Italian corporate groups. However, according to research on Italian context (Bertoni and Randone, 2006), network building requires a long period of time and the interlocked firm increase the risk of expropriation, because directors could act jointly at the expense of minority shareholders. Furthermore, as this kind of board network becomes stable in time and because of the fact that the highest number of interlocking relationship is found among the largest companies, the extent of these relationships could cripple competition (Santella et al., 2007). Literature

43 Draghi Law (Legislative Decree no 58/1998), Vietti Reform (Legislative Decrees no. 61/2002, no. 6/2003, no. 37/2004); Saving Law (Law no. 262/2005); Rescue-Italy Law Decree (Law Decree 6/2011, ratified with amendments by Law 214/2011). It is interesting to notice that – as discussed by Monks and Minnow (2008), the Sarbanes-Oxley Act resulted in a reduction of multiple interlock relationships among boards in the US.
based on agency approach has two distinct and opposing points of view relating to the advantages and disadvantages of interlocking directorates. On the one hand, Fama (1980) and Fama and Jensen (1983) show evidence that directors, playing an effective role with their own board, are remunerated by the conferring of new directorship mandates on other boards. These directors will consequently have high expertise and reputation; this is also recognised by other boards whose firms may gain prestige and visibility by appointing highly qualified directors (Mizruchi, 1996). Thus, interlock directors contribute positively to creation of value. Similarly, the appointment of an executive as outside director on another board may increase firm value if the executive’s company has no agency problems (Perry and Peyer, 2005). On the other hand, research currents point out the negative effects of interlock directors on internal and external control systems (Shivdasani, 1993; Cotter et al., 1997). In the same vein, Larcker et al. (2011) maintain that control efforts played by the board decrease because directors are too busy; this leads to a potential negative effects on firm performance (Croci and Grassi, 2013). This effect is also enhanced by the fact that firms have to choose among a reduced group of potential directors who share the same values or origins (Mizruchi, 1996). Furthermore, interlocking directorship could increase the reputational risk faced by the firm; a director with an interlock role in a company involved in a financial scandal could destroy value in other companies (Fich and Shivdasani, 2007). In light of the above, we can conclude that one possible reason for negative association between board composition and firm performance is due to the high presence of interlocking directorates.

There may be three other possible reasons why directors have negative effects on firm performance. Firstly, as Ruigrock et al. (2006) argue, a high level of interlocks may have negative effects on strategic decision-making and compromise firm performance. This is due to the fact that «The more board mandates an individual director has, the more limited the time and attention he or she can devote to a single company. Active involvement in strategic decision-making requires significant knowledge about the company and its industry. To build up such knowledge is time intensive» (Ruigrock et al. 2006:1219). Secondly, the problem of a lack in monitoring can arise. Indeed, according to the agency approach, a high level of interlocks may compromise director independence due to the lack of monitoring and control by directors who are too busy and sit on a number of boards. The high levels of board interlocks in Italy does not help the quality of the role fulfilled by outside directors, leading to a worsening of firm performance. So our “negative” results are

The mainstream of Resource Dependence Theory and Stewardship approach is focused mainly on the advantages and disadvantages of interlocking directorates. Interlocking is a means to reduce environmental uncertainty and strengthen relationships with other subjects, including also possible customers (Pfeffer and Salancik, 2003). This is done by creating informal communication channels through which an exchange of valuable information can take place (Palmer, 1983; Useem, 1984) the main results are a) a decrease of environmental uncertainty and of transaction costs (Bazerman and Schoorman, 1983; Gulati and Sytch, 2007); b) the spread of innovations and an improvement of organizational learning (Haunschild and Beckman, 1998; Davis, 1991). Furthermore, as interlocking directors create strong network among different boards of directors (Burt, 1980; Hillman and Keim 2001), they could provide knowledge necessary to the company for improved efficiency through project proposals which have already been implemented in other companies (Carpenter and Westphal, 2001).
consistent with those of Fich and Shivdasani (2007) who display a negative effect on firm performance (in terms of lower market-to-book ratios, and weaker profitability\(^{45}\)) as interlocked directors are too busy. Similarly, directors have incentive to accept directorship on different boards because their personal marginal benefits are equal to the personal marginal costs (Booth and Deli, 1996). However, this leads to the impossibility of an effective control effort by the director because of a higher number of directorships than the optimal amount for the firm. Thirdly, as ownership structure of Italian companies is concentrated, interlocking directorates are a widespread phenomenon because controlling shareholders are members of several boards. Majority shareholders could have different incentives from professional directors with no large ownership stakes in several companies. In addition, controlling shareholders are often top executives of the companies. As they sit on several boards of directors they could steal valuable time from the firm management (Croci and Grassi, 2013), resulting in a reduction of firm value and performance. So, finally – as Fich and Shivdasani (2006) state - interlocking directorates may generate weaker corporate governance. Shivdasani and Yermack (1999) suggest that director independence may be weakened when directors hold multiple board seats.

Consistently with the claims of O’Connel and Cramer (2010), our results reveal a negative effect because of the high presence of interlocking which consequently has a negative impact on firm performance for many reasons.

We have also tested our models by taking into consideration a dependent variable -Tobin’s Q- which may be considered a financial performance measurement (Reddy et al., 2010). Our findings confirm that all directors may have a negative impact on performance, even though not all coefficients are statistically significant. It follows that executives, non-executives and independents could be equally bad or good at representing shareholders’ preferences. Indeed, Tobin’s Q focuses on investors, and it captures the extant of the wealth created by shareholders over a given long-term period of time. So, our results may be explained by the fact that the alignment of shareholders with those of managers is not clear-cut. In particular, our findings may show that the high complexity of corporate mechanisms go beyond the agency approach, i.e. the relationship principal-agent and the board which is considered a monitoring “device”.

**Independent directors**

 Hp 2 states that *Firm performance exhibits a positive association with the proportion of independent directors on the board*

\(^{45}\) Fich and Shivdasani (2006) find a positive reaction of the financial market when a firm announces the dismissal of a busy director.
The mean of independent directors is 3; on average, independent directors make up 33% of the board of directors. Italian 2011 code of corporate governance recommends that one third of the directors shall be independent.\footnote{Before 2011, no specifications are issued.} As the mean of the board size is 9, it follows that companies comply with regulatory requirements (even if Code in 1999 and 2006 version does not specify any minimum number); indeed, independents are on average three.

Our results [models (4), (5), and (9), (10)] point out that the presence of an independent director has a negative effect on firm performance, and these findings are consistent with those displayed in prior research (Agrawal and Knoeber, 1996; Bhagat and Black, 2002). It follows that our results contradict the assumption that firm boards should be composed mostly by independent directors.

Corporate governance is strengthened when directors are independent and remunerated with equity. On the one hand, when the board is independent, directors are less likely to be controlled by management and on the other hand, remunerating directors with equity could mean aligning the interest of the board with those of shareholders (Hillman and Dalzei, 2003; Dunn and Sainty, 2009). Furthermore, agency theory and codes of corporate governance enhance the key role of independent directors. However, our research fails to establish a positive link between independent directors and firm performance, so we must reject Hypothesis 2.

The coefficient for independent directors for ROE is negative [models (4), (5) and (9), (10)] but not always significant [models (5)], showing that the greater the number of independent directors on the board is the lower firm performance will be. The result of this study is similar to that found by Bhagat and Bolton (2008) and Fauzi and Locke (2012) respectively for US and New Zealand context. However, this is in contrast with Hossain et al. (2001) and Reddy et al. (2010) research. They find a non-significant effect of independent directors on firm performance. Even though results are not significant, they show a negative coefficient which is similar to the coefficient yielded in this research. Our negative result could be explained by the fact that compliance with Italian Code of Corporate Governance has meant increased costs which have had a negative impact on firm performance. This is consistent with Fauzi and Locke (2012) results.

The relationship between independent directors and performance may differ not only because of firms’ specific characteristics but also because of national institutional characteristics. This assumption is similar to what Guest (2009) has shown in his research with reference to board size in UK firms. Our results confirm recent findings in literature that show good governance practices are not universal but may depend on market and firm characteristics (Black et al. 2010; Coles et al. 2008; Chhaochharia and Grinstein 2007; Duchin et al. 2010; Koerniadi and Tourani-Rad, 2012).
Another explanation for negative impact of independent directors on performance could be due to the fact that, as the directors constitute a low percentage of board, they spend valuable time and energy on enhancing their firms’ specific human capital. The lack of information with reference to all firm activities and additional time can be costly and can be justified only when there are important changes in firm management (Masulis and Mobbs, 2009). The difference between our results and those for other countries is that the percentage of independent directors on board of directors in Italy is 33%, which is not in line with agency theory and international codes of corporate governance. In fact, literature points out that board independence increases effectiveness in monitoring (Byrd and Hickman, 1992; Clifford and Evans, 1997), leading to a reduction of management opportunism and a subsequent improvement of firm performance (Fama, 1980; Chen and Jaggi, 2000). As suggested by Hart (1995) and Mura (2007), independents board members may not have sufficient financial incentives to motivate effective monitoring.

In addition, the negative relationship between independent directors and ROE may constitute evidence of the lack of effective governance structures in inducing management to undertake long-term value enhancing projects. This assumption is consistent with Coles et al. (2001) who claim a contrariis; a lack of connection between outside directors and short-term performance measure (Economic Value Added) may mean that firms are characterized by «effectiveness of proper governance structure» (Coles et al., 2001: 47) which lead management to take on long-term projects which are not necessarily reflected in EVA results.

Another possible reason – far from mutually exclusive – for the negative association between independents and performance, arises from the way in which outsiders are employed on the board as part-time members; this may limit their ability to understand the complexities implied in decision-making process. (Baysinger and Hoskisson, 1990).

In fact, the Italian laws have become more stringent since 2011 regarding independent directors, this is the reason why the percentage of independents are low in the period 2005-2007. Indeed, although the European House-Ambrosetti founded the Advisory Board in 2004, it becomes a permanent observatory on corporate governance only in 2011. The board is composed by both academics and professionals in order to mix expertise, know-how, skills, and knowledge. In particular, it aims to provide concrete suggestions and proposals to enhance and develop the achievement of excellence in listed companies corporate governance. The observatory intends to optimize the overall efficacy of the functioning of the board of directors and also analyse the efficacy of the different director categories (Independent, Non-Executive and Executive). In the same vein, Italian Code of

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47 It is noteworthy that our companies population comply perfectly with the Italian Code recommendation regarding independent directors.

48 The European House – Ambrosetti is a professional group founded in 1965 by Alfredo Ambrosetti which, over the years, has developed a number of activities in Italy, Europe and the rest of the world. [http://www.ambrosetti.eu/en](http://www.ambrosetti.eu/en)
Corporate Governance was updated in 2011 regarding board composition and role, committee roles and functioning. As far as independent directors regulatory updates are concerned, it is interesting to point out two issues. The first one deals with independent directors who should make up at least one third of the Board of Directors (never less than two members) for listed companies. In fact, the previous Code versions (i.e. 1999 and 2006\(^{49}\)) recommended only an “adequate number of independent directors”. Secondly, the 2011 Code recommends that the board designates an independent director as lead independent director where there is CEO duality and where the office of chairman is held by the person controlling the company\(^{50}\). However, in listed companies, the board shall designate a lead independent director only upon request of the majority of independent directors\(^{51}\). In particular, he/she represents a reference and coordination point for the requests and contributions of non-executive directors and, in particular, independent ones. Lead Independent Directors should also cooperate with the Chairman of the Board of Directors in order to ensure that directors receive timely and complete information (Italian Code of Corporate Governance, 2011). In sum, it seems that only in recent years has Italy begun to focus attention on corporate governance quality, and on board of directors structures and composition. So it follows that, in the 2000s Italy was not so effective and attentive to the question of independent directors as the Code did not deal with these issues\(^{52}\) and there were not many institutions dealing with corporate governance quality and efficacy (as aforementioned only in 2011 was the permanent observatory on corporate governance founded). It follows that our negative results may be influenced by these weak regulations and the fact that scarce attention was paid to the role and efficacy of outsiders. These factors could lead to a decrease in monitoring of executives, who are free to take decisions which may even go against shareholders interest. This could result in increased agency costs and could compromise firm performance. Consistently with Shleifer and Vishny (1997) and Levine (1997, 1999), the nature of corporate governance and thereby corporate performance in every country is influenced by the political and legal environments.

Another possible reason for the negative relation between independents and performance could lay in the fact that Italian listed companies are characterized by concentrated ownership (Volpin, 2002) and independent directors do not have the same power as directors of public company. For instance, they cannot fire the CEO, who is the expression of controlling owner or controlling shareholder, in the case of poor performance.

\(^{49}\) It is noteworthy that in 2005 companies followed 1999 Code of Corporate Governance; whereas in 2006 and 2007, they complied with the 2006 version.

\(^{50}\) 1999 Italian Code did not recommend Lead Independent Directors, so no directors fulfill this role; whereas in 2006 Code recommended, for the first time the designation of the latter. Finally, in 2011 this issue was rationalized so as to make it clearer and easy to comply.

\(^{51}\) Except in the case of a different and grounded assessment carried out by the Board to be reported in the Corporate Governance Report.

\(^{52}\) It is interesting to notice that the first American code of corporate governance (the NACD Report) was introduced in 1996; whereas the English one (the Cadbury Report) in 1992. In Italy code of best practice (The Preda Code) is dated 1999. It is interesting to highlight that the first code of corporate governance was introduced by The Stock Exchange of Hong Kong (The Hong Kong Code of Best Practice) in 1989.
Moreover, independents could deem that potential actions and plans could be effective for firms and lead to improved firm performance, but controlling shareholders – in concentrated ownership context - may dismiss those plans, because the latter could lose their majority position. This could be the case, for example in situations where new investment may result in high value creation for the company, but this increase in the share capital might deprive the majority shareholders of company control. In such circumstances, there could be a conflict between majority and minority interests, in terms of shareholder value maximization. According to the majority shareholders point of view, the added value generated by new investment may be offset by the loss of control and the related benefits (so-called private benefits) (Jensen and Meckling, 1976; Bourjade and Germain, 2012). Large shareholders may be detrimental to firm performance and value, due to these private benefits (Bhojraj and Sengupta, 2003). From a different perspective, majority shareholders are less interested in the stock shares price, because they are “stable owners”, whereas the minority ones measure the profitability of their investment by the share price. In this respect we can see the usefulness of independents for the protection of investors or potential shareholders, even when the effective actions that the former can adopt are, once again, limited by majority interests. It follows that very high ownership concentration may influence effective governance of the firm. Even though independent directors should play a crucial role in effective governance of the firm, they may not be able to fulfil their duties effectively and to maximize firm performance. Independent directors could thus affect firm performance in a negative manner; they could make decisions that do not maximize firm performance in order to avoid hindering controlling shareholders’ interests. So, once again, it could be reasonable to note that the potential lack of independence of outside directors could leading to a worsening of performance.

Another possible reason for the negative impact of outsiders on firm performance could be explained by the fact that they might not be so effective in their role because CEOs may employ several tactics to neutralize the power of independent directors (Peng, 2004). For instance, CEOs could appoint directors with experience on other passive boards and exclude those with experience on more active boards (Zajac and Westphal, 1996). CEOs may also appoint directors who are from strategically irrelevant backgrounds who do not have the knowledge base to challenge CEOs power and to effectively take part in strategic decision making (Carpenter and Westphal, 2001). Alternatively, CEOs may appoint outsiders who are demographically similar, and more sympathetic to the former (Zajac and Westphal, 1996).

Finally, our results confirm the claims of Agrawal and Chadha (2005), i.e. in cases of serious accounting problems which could lead to a worsening of performance, independent directors have no incentives to aid the firm in covering up this data for two main reason. First, Independents are not employed by the company, thus do not have as much invested interest, unlike managers who have their jobs at stake in the firm. Second, if they help the company in covering up serious accounting problems, they will probably suffer a loss of
reputational capital and face substantial liability for which they are not covered by director and officer’ liability insurance. It follows that outsiders «have little to gain and much to lose from hiding the firm in a cover-up scheme» (Agrawal and Chadha, 2005 :402).

Non-executive directors

Hp3 proposes that *Firm performance exhibits a positive association with a low proportion of Non-executive directors on the board*

The models (4) and (9) display that the coefficient for non-executive directors for ROE and Tobin’s Q is negative and significant, showing that the greater the number of non-executive directors on the board is, the lower firm performance will be. So we reject Hp 3. Our findings are similar to Bhagat and Bolton (2008) for U.S. companies, Fauzi and Locke (2012) for New Zealand context.

The negative relationship between non-executive directors and firm performance may be due to the high blockholder ownership concentration which is one of the typical characteristics of Italian companies. The high concentration of ownership could interfere with effective corporate governance, and so the non-executive directors are unable to play a crucial and key role in effective governance of the firm. This assumption is consistent with the results of Fauzi and Locke (2012).

Furthermore, non-executive directors may connive with executive directors in deciding on high remunerations for top managers, because of the fact that they use this as benchmark in negotiating remunerations where they act as top management in their own company (Ezzamel and Watson, 2002). «Remuneration communities on the board of directors have been found to have a mixed effect on top management pay for performance» (Nanka-Bruce, 2009:32). As Conion and Peck (1998) and Ezzamel and Watson (2002) argue, the directors may increase top management compensation which might have a negative effect on firm performance. It is noteworthy that a collusion between concentrated ownership and managers may exist, too. Indeed, highly concentrated ownership could generate operational inefficiencies if the shareholders are interested in short term outcomes rather than long term gains maximisation. This is because managers could be persuaded to adopt high, risky short-term strategies not aimed at cost minimisation (Kohler, 1990). Hence, blockholders may connive with managers to subtract resources from minority shareholders (Short, 1994). Managers, colluding with blockholders, may implement strategies at the detriment of minority shareholders, resulting in a decrease of firm performance and value (Lange and Sharpe, 1995). In literature there are three main kinds of collusion: i) one between agent (managers) and supervisor (board of directors) against the principal (shareholders) (Tirole,1986); ii) one between the principal (blockshareholders)-agent

53 This study is seminal work on agent and supervisor collusion against principal.
(management/Board of directors) against principal (minority shareholders) (Burkart and Panunzi, 2006; Bloch and Hege, 2003; Volpin, 2002); iii) one between board of directors (especially Independents) and Executives (especially the CEO) against principal (shareholders) (Faleye et al., 2011; Ferreira et al., 2011; and Bourjade and Germain, 2012).

The common features of these kinds of collusion are: a) board members may on occasions collude to the detriment of third parties (e.g. minority shareholders, dispersed shareholders); b) colluders, whether they are blockholders, managers or, directors, will have benefits as well as costs in connive (Bourjade and Germain, 2012); c) lack of information exchange necessary to assess plans and projects. Generally, only the CEO knows in detail characteristics of different projects and he could hide the risk level of projects from shareholders. Indeed, choosing a very risky project that might not be so optimal for the firm yields private benefit to the CEO. Collusion takes place through a secret agreement between the CEO and some directors when the CEO convinces them not to reveal certain information to shareholders. This could be related for example to poor decisions by CEO which have had negative effect on the company. Furthermore, those collusive directors may favour CEO propositions and allow him/her to receive, for instance, severance packages, high retirement pensions and bonuses (Bourjade and Germain, 2012). This may lead to performance worsening for two main reasons. First, due to the collusive agreement between the CEO and directors, projects may be undertaken to maximize their own wealth exclusively; this may lead to an increase in costs or/and decrease in revenue. Secondly, granting such benefits to the CEO may lead to an increase in costs and resources siphoning. In the same vein, we can argue that, in general, shareholders of our firms population do not seem to have implemented any actions in order to limit the CEO’s discretion or to monitor CEO behaviour by the board. According to Faleye et al. (2011); Ferreira et al. (2011); and Bourjade and Germain (2012), five important actions can be listed to reduce or prevent collusive behaviour: a) increase the number of independents; b) avoid CEO duality; c) limit the number of mandates held by each director; d) limit the number of interlock directors; e) increase the power and independence of committees within the board, in particular audit committee. In Italy, most of these possible strategies to prevent or minimize collusive behaviour do not seem to have been adopted by the firms and law. Italian code states that one third of directors should be independents, the majority of the firms studied has one third of outsiders, not more. CEO is also Chairman in 44% of the companies analysed; only since 2011 have Italian Code and Public law tried to limit interlock directorates and the number of mandates held by each director. As the means for limiting connivance between CEO and the board are poor projects may be approved simply because they maximize CEO interests. One reason as to why shareholders do not implement any of the aforementioned actions to limit collusion could be due to a secret agreement between blockholders and the board against minorities. With increased differences between ownership and control rights we also see an increase in

54 As Bourjade and Germain (2012) state such collusive pact may be a monetary or a non-monetary transfer (benefits, perks, salary increases, insurance to stay in the board, and so on).
the *entrenchment effect*, which results in opportunist behaviour to the detriment of minorities (Morck *et al.*, 1988). This kind of connivance may be frequent in Italy, because Italian companies are characterized by concentrated ownership, the presence of blockholders, and high influence of family within the board and ownership. Voting syndicates\(^\text{55}\) among shareholders are also very frequent which lead to collusive agreements among large families aimed at preserving the stability of control (Volpin, 2002). This could be a reasonable explanation for the negative relationship between independents and non-executives and firm performance; blockshareholders may foster and approve projects which result in high benefits for shareholder wealth, but at the same time result in higher costs and subsequent poor performance. Our interpretation is consistent with the claims of Shleifer and Vishny (1997). They find that in the case of family ownership the family play an active role in management even when the necessary skills are no longer present; this may result in lower performance compared to non-family companies. Moreover, Barclay and Holderness (1989) show that concentrated ownership lowers the possibility of accessing external contributions thus reducing firm value. This kind of connivance may be frequent in Italy, because Italian companies are characterized by concentrated ownership, the presence of blockholders, and high influence of family within the board and ownership. In the same vein, Bracci and Maran (2012) and (Schein, 1983) argue that owner-manager can influence both the firm and the family in terms of impact on culture, values and performance.

It is relevant to note that independent directors coefficient has the same negative sign of non-executive directors coefficient. A possible explanation as to why independent and non-executive directors have both negative impact is that – consistently with Clifford and Evans (1997) – there are no monitoring effects when affiliated or grey directors are included as independents. They find that board effectiveness will improve if the board is composed of a majority of independents, but only in the case where independence is carefully defined. Italy started defining independence criteria in 2006 and in more depth in 2011. We studied the period 2005-2007 where in 2005 independence was not clearly defined, and 2006-2007 are transition years where firms boards had not completely adopted the updated independence criteria.

Non-Executive directors have a hybrid role because they belong to the directors category which is somewhere between that of Independent and Executive directors. Non-executive or affiliate outside directors (Byrd and Hickman, 1992) are non-executive (but not independent) board members who are not employed by the firm, but nonetheless have business ties and affiliation (Hossain *et al.*, 2001). They are not full time employees but are related with company in different ways. For instance, they could be interlock directors, bankers who have made loans, lawyers who have provided services, consultants. Our results show a negative effect of non-executive directors on firm performance which is in

\(^{55}\) «A voting syndicate is a coalition of relevant shareholders who sign a binding agreement to vote together for a few years» (Volpin, 2002: 63)
contrast with our research hypothesis \textit{Hp 3}. As affiliated directors could be also interlock directors, we find in the previous section a negative correlation between this kind of board member and firm performance. The negative effect of non-executives on performance are consistent with the claims aforementioned in regard to interlocking directors. As grey directors are affiliated with the firm and simultaneously engage in other professions (Academics, Professionals, bankers, lawyers, consultants), they may also lack: time, access to information, and interest which is fundamental for effective decision control (Lorsch and MacIver, 1989). Consequently, the negative impact of non-executive directors on firm performance may be due to a scarce control on firm projects that have led to poor performance. This view is consistent with Fich and Shivdasani (2006) claims. They argue that the majority of boards consisting of busy directors are linked to weak corporate governance and poor firm performance, suggesting a connection between over-boarding and director ineffectiveness. In the same vein, Beasley (1996) argues that a higher probability of accounting fraud exists among firms in cases of over-busy directors and Core \textit{et al.} (1999) display that companies with busy directors may offer excessive compensation and have weak performance.

\textbf{Executive directors}

\textit{Hp 4} states that \textit{Firm performance exhibits a negative association with the proportion of Executive directors on the board.}

The impact of the number of insiders is also negative [model (4)] but not always significantly [model (9)] so, it depends on the performance measure. Our findings, of a significant and negative relation between executive directors and performance, is consistent with our research hypothesis and with theoretical expectations.

As shown in the descriptive statistics section, the mean of executive directors is of 3 members out of the mean board size of nine directors. This means that generally firms adopt the recommendation of the Italian Corporate Governance code which states insider percentage must not be high. In our firms population executive directors represent about 33\% of the board. However, consistent with agency framework, they have a negative impact on firm performance, probably because they are dependent on CEO for their employment and compensation (Helmich and Brow, 1972; Helmich, 1974; Fee and Hadlock, 2004). Indeed, inside directors – as well as outside ones – have the role of monitoring and controlling the CEO; however the former is under the evaluation and control of CEO. Thus, they are not likely not adopt positions which go against the CEO. This could weaken the overseeing and control roles, resulting in lower firm performance (Masulis \textit{et al.}, 2009). If executive directors played an effective overseeing role and channelled relevant information (i.e. reduced information asymmetry) to outside directors, this could improve corporate governance structure of the firm which would lead to better
firm performance. According to our results, it seems that Italians executive directors fail to monitor CEO behaviour and minimize information asymmetry as evidenced by the negative coefficient of insiders. In the same vein, it does not seem that inside directors are able to enhance board functionality and board decision making, factors which should lead to higher performance and shareholders wealth according to some scholars (Raheja, 2005; Harris and Raviv, 2008; Acharya et al., 2009). It is possible that the negative association between executives and firm performance might have increased if the former had been more than the mean of three. However, it is important not to increase the number of executives, because this could cause worsening performance. An optimal number of insiders does not exist and depends on different elements, such as firm size, industrial sector, country, laws principles, and so on.

The results may also be interpreted as evidence that affiliated directors who are members of the top management team are closely tied to the CEO (Ellstrand, Tihanyi and Johnson, 2002), leading to be a favouring of actions which are associated with low risk (Mizruchi, 1983) for several reasons. Insiders may be more careful in choosing actions and projects that maximize firm performance. On the other hand shareholders favour actions which have riskier outcomes because they can select stocks for their portfolio diversifying against risk. Thus, stockholders could approve projects with higher risk leading to poor performance. Shareholders prefer firms to aim for outcomes that maximize returns, even if they are associated with higher risk (Jensen and Meckling, 1976); whereas managers prefer lower risk projects as they cannot diversify their portfolio. It follows that, as insiders have a negative impact on firm performance, they may be obliged by blockholders to implement projects with higher risks leading to weaker performance.

Another possible reason for the negative association between executives and firm performance could be explained by considering the so-called cross directorship which is part of the wider topic of interlocking directorates. Indeed, the former deals specifically with the intertwining of CEO and other directors positions. In particular, this is the case where the CEO of a company (Alfa) is appointed director of another company (Beta) which does not belong to the same corporate group, and where the CEO of company (Beta) is a director of a firm (Alfa). On the other hand, the interlocking directors issue refers to every member of board regardless of executive and non-executive offices. It is noteworthy to point out that the Italian Code of Conduct explicitly prohibits the CEO appointment of an Italian listed company director of another company not belonging to the same corporate group. This is to avoid potential conflict of interest; however, it is not possible to exclude that, depending on the circumstances, sometimes this may be justified (Italian Code of Corporate Governance, 2012). This principle became valid only from 2011, indeed before 2011 the CEO of a company could be appointed director of another firm. This same

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56 Ellstrand, Tihanyi and Johnson (2002) find out three main reasons. First, less risky actions may ensure that the CEO will retain his or her position. Second, less risky projects could mean job security. Third, less risky outcomes will lead to more rewards for managers.

57 This term is used by Annual Report 2012 issued by Italian Stock Exchange.
principle may cause - based on agency perspective – lack of monitoring, resulting in negative impact on firm value, because managers can follow projects that maximize their own interests. Indeed, cross directorship, and interlocking directorates, over-commit a director who is more likely to avoid his/her duties and responsibilities (Ferris et al., 2003). If the Italian lawmaker decides to prohibit cross directorship\textsuperscript{58} this practice could lead to negative consequences to the company in terms of firm performance and shareholder wealth (Fich and Shivdasani, 2003; Devos et al., 2009).

The impact of CEO Duality on firm performance

*Hp 5 proposes that Firm performance exhibits a negative association under leadership structures that combine the roles of the CEO and Board President.*

The correlation between duality and ROE, Tobin’s Q is positively unexpected, and not statistically significant [models (2), (4), (7), (9)]. It seems that duality should lead to superior firm performance as it permits a single leadership structure for purposes of strategy formulation and implementation, even though the coefficient is not statistically significant. There is no evidence that CEO duality significantly affects firm performance as agency approach states.

Our results are consistent with Coles and Hesterly (2000) and Conyon and Murphy (2000), CEO duality and CEO non-duality do not differ in their effect on firm performance and this relationship may depend on board composition. Hence, Kand and Zardkoohi (2005) deem that duality is a «non-random phenomenon» (Kang and Zardkoohi, 2005: 786), depending on different conditions, the presence of powerful CEOs who over-ride board members, rewards for good CEO performance; and on other conditions which in part recede from agency approach, such as a solution to environmental resource scarcity, complexity and dynamism, and conformity to institutional pressures.

Our results are broadly consistent with the findings of other research (Chagati et al., 1985; Molz, 1988; Baliga et al., 1996, Abdullah, 2004). Probably the use of ROE for short-term performance measure is not able to capture any significant association with CEO duality (Forsberg, 1989; Abdulllah, 2004). Furthermore, the marked-based measure (Tobin’s Q) confirms ROE findings.

\textsuperscript{58} It is relevant to highlight that as Italian legislator have abolish the possibility of cross directorship, it means that there are more costs (disadvantages) rather than benefits (advantages). This implies that lawmaker have implicitly adopted the agency theory (Emmons and Schmid, 1999). However, resource dependence theory deems that cross directors and interlock ones provide positive consequences to the firm because of the contribution cross directors and interlocking ones bring to social and relational capital of a company (Pfeffer e Salancick, 1978) enhancing strategic (Pfeffer, 1991; Carpenter e Westphal, 2001) and networking (Burt, 1980; Hillman et al., 2001) role of the board of directors.
Another possible reason for lack of relationship could be that there is no single optimal leadership structure, as both duality and separation perspectives have related costs and benefits (Brickley et al. 1997). On the one hand, the potential monitoring benefits of non-duality imply the separation of management and control. On the other hand, the potential costs of non-duality regard information asymmetry, inconsistent decisions, and extra remuneration in maintaining two directors. The potential benefits and costs are to be assessed ex ante. Our results confirm that board leadership structure is found to be contingent on several factors, namely organizational and ownership structure, board and firm size, industry and business environment and decision context (Boyd, 1995; Rhoades et al., 2001; Palmon and Wald, 2002; Kiel and Nicholson, 2003; Faleye, 2007; Lam and Lee, 2008). Our findings find that environmental uncertainty may influence the impact of CEO duality on performance. In high environmental uncertainty CEO duality provides speed of decision making and, unity command which are fundamental to manage uncertainty (Boyd, 1995). This may be a possible explanation for our apparently positive coefficient. However, our results, consistent with those of Boyd (1995), show that there is no significant relation, this could mean that, because of environmental uncertainty and complexity, and dynamism changes, it may be hard to capture the exact impact of CEO duality on performance. This is probably due to fact that the positive or negative influence of combined or separate CEO and chair roles may depend solely on other factors (e.g. laws, country characteristics, models of corporate governance, firm structures, personal skills and expertise). Thus, our findings confirm that it is generally arduous to argue whether CEO duality is uniformly good or bad for firm performance (Peng et al., 2007). The challenge is to identify the contingencies under which CEO duality could enhance or worsen performance. According to Peng et al. (2009) a key to specify such contingencies is to differentiate firm’s ownership types.

Another possible explanation for the insignificant relationship between CEO duality could be due to the fact that our results capture some factors which are not easily measurable. In other words, the likelihood that CEO duality may harm shareholders wealth because of the lack of inefficient monitoring – as agency scholars state – may depend on other elements, such as CEO personality, his/her beliefs, values priorities, personal characteristics, principles. This claim is consistent with recent research on CEO organizational behaviour carried out by Boivie et al., 2011; Lange, Boivie, and Westphal, 2011). Moreover the absence of significance may suggest that CEO duality is a more complex issue than the simple splitting of roles (Krause et al. 2014). For instance, Quiegley and Hambrick (2012) argue that in many companies the separate Chairman is the former CEO. This leads to an increase of agency costs, as the former CEO who serves as current Chairman is not so objective in monitoring, and may be a hurdle to strategic change.

Moreover, our results support the claims expressed by Anderson and Anthony (1986), Stoeberl and Sherony (1985), Alexander et al. (1993), and Sridharan and Marsinko (1997). These finding might mitigate some concerns among shareholders, the government,
regulatory institutions and corporate governance watchdogs and investors and lack of board independence. Indeed, even though CEO duality may indeed reduce board independence (Rhoades et al., 2001), this does not necessarily mean that the firms with CEO duality will perform worse than CEO non-duality companies. On the other hand, firms with CEO duality may benefit from having strong consistent leadership at the top, and may minimize some costs of conflicts between the CEO and the board. CEO duality may provide the firm with strong leadership and consistent vision fundamental for firm success.

It is interesting to point out that the lack of coefficient significance may mean that even though competition unambiguously promotes efficiency (Nickell, 1996), its impact on profitability is not so clear (Nickell, 1996; Giroud and Mueller, 2010; Frésard and Valta, 2012). Furthermore, accounting measures are possibly subject to managerial manipulation (Yang and Zhao, 2013). In this vein, Balakrishnan and Cohen (2011) show that in response to competition, firms may increase or decrease financial misreporting. In addition, the non-significant effect of CEO duality on firm performance may be due to possible existence of endogeneity in CEO duality, meaning that the corporate leadership structure is endogeneously and optimally determined, given company features and ownership structure (Faleye, 2007; Chen, Lin, and Yi, 2008). Our findings cast doubts on the claims that performance improves switching from dual to non-dual leadership structure.

It is relevant to bear in mind that according to agency theory, the relationship between CEO and shareholders is inevitably problematic; management decisions, required by shareholders, are taken to improve the latter’s health, and at the same time owners must prevent CEO from maximizing only his/her wealth. Shareholders protection could be guaranteed by the presence of a chairman who is fully independent of executive management. The CEO in fact, is responsible for initiation and implementation of strategic decision; whereas the board of directors is accountable for ratifying and monitoring decisions taken by the CEO (Felton, 2004). Thus, according to agency theory, the latter is an opportunist who aims at maximising his/her personal wealth at the detriment of shareholders. It follows that when CEO is also board chairman, the duty of the board as an internal monitoring and control mechanism fails (Fama and Jense, 1983; Eisenhardt, 1989), because those people who are responsible for the firm’s performance are the same as those who evaluate efficiency (Gillan, 2006; Harris and Helfat, 1998; Shleifer and Vishny, 1997). However, our results suggest that this claim is not so clear-cut. It is not possible to define ex ante whether the presence of CEO duality within the company may compromise performance. This is due to the fact that there are other elements to be evaluated, before affirming that CEO-Chairman duality effectively harms the company, for instance the interaction between CEO and institutional shareholders, blockholders and/or, top management ownership.
As Hermalin and Weisbach (1991) claim, the statistically non-significant coefficient could be due to insufficiently powerful tests. However, this “negative” result could be interesting to consider in order to understand the reasons underlying it; these could be useful to understand relations between corporate governance structure (in this case CEO duality) and firm performance and any implications within theoretical framework.

We have tested our models, taking into account not only accounting measure (i.e. ROE), but also financial performance measure (i.e. Tobin’s Q). The results show a positive but not statistically significant relationship between CEO duality and firm performance. Those are consistent with previous research (Dalton et al., 1998, Adnan et al., 2011; Baliga et al., 1996; Chaganti et al., 1985; Cooper, 2009; Daily and Dalton, 1993; Daily and Dalton, 1992; Dalton et al., 1998; Garcia-Sanchez, 2010; Valenti et al., 2011). These inconclusive findings may be a signal that the issue is not whether CEO duality is uniformly good or bad for companies, but that it is necessary to advocate and enrich a contingency perspective. In the same vein, Dalton et al. (1998) argue that markets are fairly apathetic to CEO duality. The latter therefore may benefit from high environmental uncertainty, as CEO duality confirms unity of command and speed in terms of decision making (Boyd, 1995).

Another possible reason may lie in the fact that external factors (e.g. economic conditions, political instability) or internal ones (e.g. individual experience, expertise, education) may affect firm performance much more than the overlapping of CEO and Chairman roles. Thus, consistently with a meta-analysis by Johnson et al. (1996) and Kang and Zardkoohi (2005), there are no differences in terms of performance between firms with CEO duality and non-duality. Consistent with Dalton et al. (1998), the direction of the relationship changes according to different performance measures and correlation is not large enough to be meaningful. Finally we can argue that CEO duality may be a random phenomenon (Kang and Zardkoohi, 2005) the presence of which is not able to explain ex ante the exact sign and intensity of CEO duality-firm performance.

The impact of Audit Committee on firm performance

Hp 7 states that Firm performance increases in presence of Audit Committee.

We have tested our research hypothesis considering as dependent variables both ROE and Tobin’s, and our results show a negative but statistically insignificant relationship between the presence of Audit Committee and firm performance. Indeed, model (5) shows the significant and negative relation between the presence of Audit committees and ROE; whereas model (3), (8) and (10) display the negative and not statistically relationship between Audit committees and both ROE and Tobin’s Q. So we have to reject Hp 7. This
institutional body, which serves shareholders in the monitoring of management activities does not provide any explanation for the changes in firms’ performance.

According to agency prospective, monitoring function is a fundamental issue not only as regards board composition but also regards the composition and the structure of committees within the board, especially those relating to audits (Xie et al., 2003). Kesner (1988) claims that the most important decisions come from committee level. These claims are not consistent with our negative results, although they are not significant. Indeed, the audit committee is accountable for overseeing performance, and the presence of independent members is related to the controlling abilities of this committee. The fact that our results are negative and not statistically significant may mean that, while audit members can potentially have positive effects on firm performance, this is not actually the case, probably because of the negative influence of outsiders on performance discussed earlier. Thus, our results are consistent with concerns that committee independence and objectivity may be compromised (Brody and Lowe, 2000; IIARF, 2003). In particular, some concerns have been raised about internal audit’s dual role of consulting and assurance in the light of its need for independence (Brody and Lowe, 2000; McCall, 2003). The possible reason for the negative and not statistically significant results may lie in Italian companies features. Indeed, in Italy the independence issue is not perceived to be as crucial as in the UK because of the particular structure of shareholding (Melis, 2000). Even though we did not collect data on firms ownership structure, Italian companies are often concentrated in family-owned businesses (Bianco and Casavola, 1999). In addition, there has not been a tradition of concern regarding the problem of independence. It is only in the last ten years, following adoption of Anglo-Saxon corporate governance codes, that the independent director and audit committee have been created. As Selim et al. (2009) state, we also have to consider that until recently, in most Italian firms, internal auditors were not independent from management and were reporting functionally to the Accounting Manager, the CFO and the CEO (Melis, 2005). In the same furrow, our non-significant findings are consistent with Spira (1999) assumption, i.e. committees are largely ceremonial and ineffective in improving performance.

Our results contrast with agency approach which foresees that given the well-known conflict between the principal and the agent, firms have to adopt control mechanisms to minimize agency costs and information asymmetry such as audit committees (Knapp (1987; Kalbers et al., 1998) Thus, audit committee plays a pivotal role where agency costs are high in order to improve the quality of information flows from the agent to the principal (Pincus et al., 1989; Beasley, 1996; Felo et al., 2003). In fact, McMullen (1996) argues that the presence of audit committee ensures a high quality of financial statements and firm performance. However, our results are consistent with Treadway (1987) research according to which the mere presence of that committee does not necessarily mean that it is effective in performing its control role. It is not apparent that it is possible to identify a priori a positive relationship between the presence of the audit committee and firm
performance. Finally, consistently with Spira and Page (2003), the audit committee may be not such an effective body for protecting shareholders’ interests.

A possible reason for the lack of or otherwise for the negative relationship between the Audit Committee and performance could be that in Italian context an intricate control system exists. As aforementioned, there are two kind of auditing, i.e. internal and external, as in international best practices. However, the internal control system is more complicated than the UK, US, German and Norwegian systems (Rasmussen and Huse, 2011). Italian companies, which adopt the so-called traditional model, have to adopt different kinds of internal controls, internal audit, supervisory board which are mandatory, the audit committee and/or the control and risk committee\(^{59}\) which are recommended. Furthermore, there is no unique regulation which firms have to respect, but different directives which are relevant in relation to the internal control matter exist. It follows that the Italian control system implies duplication and/or overlap with resulting uncertainties in the areas of competence and, therefore, responsibility. Moreover, some members of those internal control bodies are entrenched with each other or they are greatly influenced by the Audit Committee (Ferrarini and Giudici, 2005). On the one hand, multiplicity of control power may encourage stringent moves by individual controllers, to avoid strategic decisions which may harm the firm (Malguzzi, 2006; Selim et al., 2009). On the other hand, this complex internal control system may represent a negative phenomenon leading to role confusion, task and responsibility overlapping, and uncertainty of responsibilities. Thus, our findings may highlight the lack of coordination of internal control system and the overlapping issue of internal roles. Some typical audit committee duties, for example are fulfilled by the supervisory board (Ferrari and Giudici, 2005). Furthermore, the Italian internal control system lacks a clear legislative definition and is not regulated by a general discipline (Gasparri, 2013). This may contribute to the unclear functions of the bodies within the internal control system. Finally, «control bodies in Italy are substantially undeterred, not because of substantive rules, but because of poor enforcement» (Ferrarini and Giudici, 2005:5).

Another explanation of the absence of coefficient significance could be due to the fact that we should also consider other factors related with Audit Committee (Klein, 2002; Bryan et al., 2004). We believe that testing the presence of audit body within company is essential to understand whether Italian companies generally comply with the Code of Corporate Governance and are aligned with the international best practices. However, it is also fundamental to test other drivers (Klein, 1998), such as the degree of independence in audit committee members, expertise (Chan and Li, 2008), education, professional background,

\(^{59}\) The control and risk committee was introduced in 2011 by the Italian Code of Corporate Governance. It replaced the previous Audit Committee which identified with the Supervisory Board, according to Legislative Decree no. 39/2010, art. 19. In particular, the control and risk committee plays the role of «supporting, on the basis of an adequate control process, the evaluations and decisions to be made by the Board of Directors in relation to the internal control and risk management system, as well as to the approval of the periodical financial reports» (Italian Codes of Corporate Governance, 2011: 30).
number of meeting per year, interaction of committee members with other internal or external control bodies. Further research may address these additional elements.

The impact of Big Four on firm performance

Last but not least, Hp 8 states that Firm performance increases in presence of the so-called Big Four.

Our results confirm that hypothesis even if not in all cases. Indeed, models (3), (8) and (10) confirm the positive effect of Big Four on firm performance; whereas models (5) display a negative impact on firm performance.

The international Big Four auditing firms have «brand-name reputations and are widely viewed as producing higher quality auditing» (Francis et al., 1999: 1760) than non-Big Four firms. External auditors are appointed by the shareholders’ meeting for three years and are chosen from the firms registered with the Ministry of Justice. They are the expression of shareholders’ will and they may constitute a means to reduce agency costs.

As far as we know, there is no research about the impact of Big Four presence on firm performance. The extant few studies focus on the relation between big four and audit quality (DeAngelo, 1981, Francis et al., 1999), earnings quality (Francis and Wang, 2008), earnings management (Healy and Wahlen, 1999) accounting fraud (Lennox and Pittman, 2010), economic dependence created by large clients (Reynolds and Francis, 2001), industry experience (Bonner and Lewis, 1990; Bedard and Biggs, 1991; Johnson et al., 1991; Wright and Wright, 1997).

Our results show a positive effects of Big four presence on firm performance. A reasonable explanation could be that larger audit firms provide a higher level of audit quality (DeAngelo, 1981); moreover the larger the auditor is, the less incentive there is for the auditor to behave in an opportunist manner and the perceived quality of the audit will be higher. In the same vein, Francis et al. (1999) argue that entrusting the audit function to the Big Four is strictly connected to mitigating the likelihood of opportunist management of accruals-based earnings. It follows that agency problems affect the demand for external monitoring by auditors (Jensen and Meckling, 1976) and the specific request by firms for higher quality Big 4 audits (Francis and Wilson, 1988; DeFond, 1992; Craswell et al., 1995; Francis et al. 1999). Hiring a higher quality auditor as external monitor (such as the Big Four) may help outsiders and especially shareholders to minimize opportunist behaviour of management, because audit firms size could be a proxy for independence as well as audit quality (DeAngelo, 1981; Reynolds and Francis, 2001). Our findings are consistent with these claims, because, by choosing the biggest auditing firms, private

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60 It relevant to point out that Francis et al. (1999) research focusing on the role of Big 6 Auditors rather than the Big 4, simply because the biggest auditing firms became four in 2002.
benefits undertaken by management may be reduced. This means company implements actions that maximize profit and shareholders’ wealth. The auditing service provided by the Big Four is more costly than non-Big Four; however agency costs (i.e. asymmetric information) seem to be higher than the expense related with auditing, because the Big Four auditors provide increased protection against top management opportunist behaviour. Furthermore, Watts and Zimmerman (1983) point out that auditor size is a synonym for audit quality, because the larger audit size has a comparative advantage in monitoring individual behaviour. In the same vein, DeAngelo (1981) claims that the likelihood of an external auditor discovering a breach may depend on the auditor’s capabilities and, the auditor procedures employed. The probability of reporting a detected breach is a measure of an auditor’s independence. So, it follows that Big Four firms are more capable of monitoring and are more independent than the non-big four, leading to an increase of firm performance. The firm performance may be enhanced with the presence of the Big Four probably because they can prevent and monitor strategic actions which, on the one hand, could harm the company, and, on the other hand favour some subjects within the company (such as the CEO, top management). Similarly, Lennox and Pittman (2010) find that companies whose external auditor is one of the Big firms register lower incidence of fraudulent financial reporting than companies whose external auditor is non-Big firms. According our results, Big4 have a positive effect on firm performance, so it may mean that they are independents enough. It follows that they are able to carry out all work that they consider necessary to enable them to fulfil their duties without any restrictions by shareholders, management and board of directors.

Another possible reason for the positive correlation could lie in the fact that Big four auditors are more interested in the cost of firm misreporting and its effect on auditor reputation. Whereas non-Big Four auditors have less reputation capital at risk and less chance to risk client dismissal by applying a higher level of earnings quality (Francis and Wang, 2008). Similarly, Simunic and Stein (1987) point out that Big Four have incentives to improve and maintain reputation around the world, because they are international firms with global and widespread operations. Under this perspective Big 4 should have more incentive to protect their reputation than non-Big 4 firms. Furthermore, Big 4 auditing firms are specialist auditors who have expertise in detecting management opportunist behaviour and incentive to report such behaviour (Krishnan, 2003). They also show greater compliance with auditing standards rather than non-Big 4 auditors (O’Keefe et al., 1994). It follows that firm performance could increase with Big Four audits because they may be able to siphon costs related to with opportunistic managerial behaviour, costs of misreporting, etc.

In light of the above, our findings appear consistent with Craswell et al. (1995), Francis et al. (1999), Francis and Krishan (1995), Reynolds and Francis (2001), Francis et al., (2003) who point out that international Big 4 auditing firms have brand-name reputation, so they
can charge additional audit fees (Palmrose, 1986), and behave qualitatively better than smaller non-Big 4 auditors.61

Some connections between internal and external auditing exist. For instance, a high proportion of audit committees may mean that they are active in the engagement or retention of external auditors (Parker, 1997). Similarly, Abbott and Parker (2000a, 2000b) show that audit committees which have minimum levels of both activity and independence are more likely to engage higher quality external auditors. Our findings confirm this claim, as the presence of audit committee – not only the Big Four has a positive (albeit not statistically significant) effect on firm performance.

It is noteworthy that testing the relationship between the presence of Big Four and firm performance – measured by ROE and Tobin’s Q – we have found that all the results are not statistically significant and positive, except for model (5). The latter, that measures the impact of Big four on ROE shows a negative result.

However, the fact that the majority of coefficients of Big Four are positively associated with Tobin’s Q may mean that the measure of financial market (i.e. Tobin’s Q) is positively related with investor protection laws (Francis et al., 2003). It follows that countries with higher investor protection have national accounting and auditing standard that are more accrual based, and greater quality auditing as an enforcement mechanism (Francis et al., 2003). So, as those researchers argue, the role of auditing in corporate governance may be driven by national legal systems. At any rate, accounting and auditing rules could compensate for "weak" investor. The presence of Big Four auditing firms is associated with more developed financial markets (Francis et al., 2003), like segment STAR which is the market where our firms population is listed.

However, the fact that only one coefficient shows a negative impact of Big Four on ROE may be explained in the words of Coffee (2005: 306), «all gatekeepers are not alike» and they develop proposals with entirely different content for auditors and for securities lawyers (Coffee, 2005)

On the table 5.18 we sum up our results and possible explanations may stand.

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61 Research above mentioned refers to Big Six or Big Five auditing firms, because those studies were conducted before 2002, the year in which elite international auditing firms became Four.

62 In the present research the noun “gatekeepers” is used as a synonym of “Big Four”. It is noteworthy that some scholars define “gatekeepers” with a wider subjects category, i.e. auditors, lawyers, board of directors, rating agencies, securities analysts, as well as Big Four firms (Coffee, 1999/2004).
Table 5.18 Results and possible explanations

<table>
<thead>
<tr>
<th>Dependent Variables: ROE/Tobin’s Q</th>
<th>Expected sign</th>
<th>Effective sign</th>
<th>Explanation</th>
</tr>
</thead>
</table>
| **Board size**                    | -             | -/-            | 1. Smaller board is more effective  
2. Less problems of communication, coordination and decision-making  
3. Minimize agency costs  
4. Less problems of board cohesiveness and “free rider”  
5. In long-term not possible to evaluate impact, because of the environment too dynamic and changeable |
| **Independent Directors**         | +             | +/-            | 1. Compliance with Code of CG increases costs  
2. National institutional characteristics  
3. Low percentage on board size (less effectiveness of monitoring)  
4. Lack of governance effectiveness structures in inducing management to undertake long-term project  
5. Part-time directors  
6. Italian laws have become more stringent since 2011 (poor regulation and scarce attention on ID)  
7. Concentrated ownership  
8. Neutralized power by CEO  
9. No incentives in covering up accounting problems |
| **Non-executive Directors**       | +             | -/-            | 1. Blockholders ownership concentration  
2. Family business structure  
3. Connivance between non-executives and executives  
4. They fail to monitor agents  
5. Hybrid role |
| **Executive Directors**           | -             | +/-            | 1. Connivance between non-executives and executives  
2. Dependence on CEO  
3. Cross-directorship |
| **CEO Duality**                   | -             | ++             | 1. ROE is not able to capture any relations  
2. There is no optimal leadership structure  
3. Factors not easily measurable  
4. Accounting measures are likely to managerial manipulation  
5. Not clear connection between CEO duality and board monitoring role.  
6. Powerful test  
7. Internal and external factors affect firm performance |
| **Audit Committee**               | +             | -              | 1. Monitoring function not verify in toto  
2. Independence and objectivity are compromised  
3. Ceremonial body  
4. Measuring the presence of Audit Committee may be not sufficient  
5. Intricate control System in Italy and lack of clear legislation  
6. Considering other variables related with Audit Committee |
| **Big4**                          | +             | -/+            | 1. Higher level of audit quality  
2. Improving in monitoring of firm procedures  
3. Cost of firm misreporting  
4. Internal and external auditing |
5.8 Conclusions

The most influent theoretical framework for studying corporate governance is agency theory (Bricley et al., 1997; Roberts et al., 2005; Fauzi and Locke, 2012). Board features have been the topic of a lot of research with various theoretical framework, especially agency one. The latter examines the well-know conflict between shareholders (principals) and managers (agents) and the intermediary body which is the board of directors. Indeed, agency approach addresses to monitoring mechanisms, such as the board of directors which acts on behalf of shareholders, independents directors, the splitting role of the CEO and the Chairman, internal and external audit systems. Agency approach is very rooted into the most of research, rather than stakeholder, stewardship and resource dependence theories. This may be due to the fact that agency theory explains in a very simple way some complex dynamics within every firm (Huse et al., 2011). It does not actually focus its attention on drivers different from shareholders, management, board of directors, monitoring roles, and their consequences.

As we have found in chapter 2, agency theory may be on the basis on Italian corporate governance model which is in the middle, in terms of characteristics, of the two archetypes, i.e. Anglo-Saxon and German-Japanese models. Thus, we decide to formulate our research hypotheses in accordance to agency theory and in line with the mainstream of corporate governance literature.

Testing these characteristics on our population of Italian listed companies (Segment STAR) shows mixed results, not even in accordance with the agency theory. In fact, it seems that this theoretical perspective does not pay enough attention to the interconnection between board features and firm performance. Our empirical results are not even consistent with research hypotheses which are based on agency approach.

In the Italian context, testing the relationship between board size and composition, CEO duality, Audit Committee and Big Four as a proxy of corporate mechanisms, which could be considered a tool to mitigate agency problems, and firm performance displays mixed and sometimes inconclusive findings.

Daily et al. (2003) emphasize the lack of clear empirical support for a monitoring and oversight approach to governance which one of main agency theory principle. It seems that the problem lays on the inadequate attention to the potentially large number of variables between the board and firm performance (Roberts, Mcnulty and Stiles, 2005).

Econometric analysis using a population of Italian listed companies (STAR segment) provides evidence board size and board composition negatively affect corporate performance. In addition, our findings demonstrate that firm performance increases in the presence of CEO duality (i.e. board leadership structure that does not split the CEO and the chairman roles). This is confirmed by using like performance measure both ROE and Tobin’s Q. In addition, our empirical evidence on the association between the presence of
independent directors and firm performance contradict agency theory, consistently with research by Agrawal and Knoeber (1996); Bhagat and Black (2002); Dalton et al. 1998; Hermalin and Weisbach (1991); Yermack (1996); Klein et al. (2004, 2005); Lawrence and Stapledon (1999); Black et al. (2010).

Furthermore, the negative impact of Independent directors and not statistically significance of audit committee on firm performance may be confirmation that the internal control system has failed (Cuccu, 2011). It is sufficient to remember all the recent scandals and frauds in order to have evidence that gatekeepers are not so effective. Our results of the period 2005-2007 seem to confirm that assumption. In the same furrow, Big Four auditing results shows a positive but not statistically effect on firm performance, except only for one model which highlights a negative and not significant effect. This leads to confirm that Big Four firms boast of brand-name reputation (Francis et al., 2003) and they are more capable to oversee and be independent than the non-Big four (DeAngelo, 1981). However, there could be differences among all gatekeepers (Coffee, 2005), and Big Four firms does not necessarily provide a better quality of auditing services than Non-Big Four (Lennox and Pittman, 2012).

Our results confirm recent findings in the literature that good governance practices are not universal but may depend on market and firm characteristics (Black et al., 2010; Coles et al., 2008; Chhaochharia and Grinstein 2007; Duchin et al., 2010). That implies that boards are not always effective and imposing a single board model for all firms is likely to create agency problems and result in a contraction of shareholder value.

Another issue which is noteworthy to point out is the choice of performance measures, i.e. ROE and Tobin’s Q which are consistent with previous studies (Eisenberg et al., 1998; Yermack, 1996; Beiner et al., 2004; Coles et al., 2008; Bozec and Dia, 2007). As Pham et al. (2007) argue, Tobin’s Q is not always the best measure of the firm performance. It could actually embody growth opportunities connected not with managerial decisions but with external conditions. The effects of independent variables on firm performance may differ depending on the performance measures used, and so different measures of firm performance may produce different results (Krivogorsky 2006; Lawrence and Stapledon 1999).

Notwithstanding the mixed results, this study also contributes to the limited existing literature on the association between corporate governance structure, auditing mechanism and firm performance in Italian economies. Indeed, little research has been conducted so far on the relationship between board mechanism and performance of Italian listed companies. For instance, Marra and Rizzo (2010) study the impact of board size, independent directors, audit committee on ROI and Abnormal Working Capital Accruals (AWCA) like proxy of earnings management in a sample of Italian Listed companies. Finally, they find that the presence of audit committee, independent directors may improve firm performance (ROI). The presence of independent directors, who monitors the
managers actions, enhance earnings management. Thus, that research based on agency approach finally confirms its assumptions. Bachiller et al. (2011) analyse the relationship between the board composition and financial, social performance of Italian family and non-family firms (year 2009). They find that an improvement in firm profitability is associated to a decrease board dimension and an increase of independent directors. Another Italian research focus on whether the gender could influence performance of Italian listed companies, for the year 2009 (Bianco et al., 2011). They show that board size and market capitalization of the company are positively correlated with the presence of at least one woman in boards. Furthermore, they find no correlation between women directors, jointly considered or classified according to family affiliation, and companies’ performance. In the same furrow, Drago et al. (2011) find that female interlock director is negatively related with firm value for Italian listed companied, period 2003-2010.

In a nutshell, our findings could be synthesized with Forbes and Milliken (1999: 490) claims, «The influence of board demography on firm performance may not be simple and direct, as many past studies presume, but, rather, complex and indirect. To account for this possibility, researchers must begin to explore more precise ways of studying board demography that account for the role on intervening processes».

Our findings are in line with previous studies that show that the success of board of directors as a corporate governance mechanism may depend on different contextual variables, as well as on the power of key internal and external actors (Aguilera and Jackson 2003; Aguilera 2005; Huse 2005). In addition, the net influence of one corporate governance mechanism is more likely to be contingent on the other applied governance mechanisms (Adams et al., 2005). It is fundamental to understand what the best corporate governance mechanisms are, because as Claessens et al. (2002) reckon, a good corporate governance framework gives advantages to the firm in terms of easier financing, lower costs of capital, improved stakeholder favour, and overall better company performance (Fauzi and Locke, 2012).

Thus, the empirical results have not shown a clear and well-defined relationship between governance and performance. Consistent with Bhagat et al. (2010: 100) who reviewed empirical literature and found the same our findings, «the appropriate conclusion to draw from this extensive line of research is not that efforts at improving corporate governance are a waste of time and effort». Rather, there could be some limitation with a research design which tries to capture and explain in few variables numerous and complex interactions within governance mechanisms. Thus, it appears plausible to assume that agency theory alone may not adequately gives sufficient evidence about the relationship between the board structure-mechanisms and firm performance. So a multi-theoretical approach is required to explain the board-performance relationship (Lam and Lee, 2008).
CHAPTER 6 - Summary and Conclusion

Contents: 6.1 Introduction; 6.2 Summary of the research; 6.3 Final results: New Perspectives, 6.3.1 From Agency Theory ..., 6.3.2 ... to Multiple Agency Theory, 6.3.3 New interpretation attempts of governance mechanisms; 6.4 Answers to Research Questions; 6.5 Areas for Future Research
6.1 Introduction

The purpose of this chapter is to summarize this research paper, present conclusions and identify possible future research areas. In particular, in section 6.2 summary of the overall study is presented; in section 6.3, the conclusions and an alternative theoretical approach is drawn up; in section 6.4 areas for future research are identified.

6.2 Summary of the research

The purpose of this research is aimed at a better understanding of the relationship between board mechanisms and firm performance in the Italian context. Although the board of directors is considered one of main pillars of corporate governance; it has received considerable attention in international literature and in codes of best practices, little research has been done to study board effect on performance of Italian listed companies. Thus, this research analyses the effect of several corporate governance variables on Italian listed firms’ performance by extending the variables and performance measures of previous international studies. Consistent with prior research, we start by adopting agency theory in order to formulate research hypotheses and interpret results. However, as discussed below, given the mixed results obtained we decided to adopt a different theoretical approach, which considers multiple relationships within the board and firms and recognizes the complexity of corporate governance mechanisms, i.e. multiple agency theory.

An important purpose of chapter one is to identify the common ground on which this research is conducted. Given that the present study develops and analyses the board of directors as one of the main corporate governance mechanisms, it is fundamental to define and discuss corporate governance, the board as corporate mechanism, and the “quantitative” relationship between board and firm performance. As discussed in chapter one, the role of the board has changed and is changing. From a legalist point of view, it could be seen simply as an ornament on the Christmas tree (Mace, 1971); however, its importance has become increasingly important. The board is recognized as being a fundamental asset for an organisation with the potential to contribute to sustainable competitive advantage (Huse et al., 2005; Minichilli et al., 2007). Furthermore, we underline the difficulty related to how corporate governance can be interpreted and defined. In addition, we find two main purposes of corporate governance which change by virtue of theoretical or practical prospective adopted. On the one hand, there is the corporate governance definition provided by the Cadbury Report (1992) which has received a great deal of consensus, and is described as «the system by which companies are directed and controlled». On the other hand, one of main purposes of corporate governance may be «to ensure economic growth» of the firm (OECD, 2004:13).
Chapter two provides a comprehensive view of corporate governance, in particular, different definitions of corporate governance are compared in a critical way, to understand the humus from which theories and models are developed. In particular, two principal approaches of corporate governance are detailed: the restricted and the extensive, which interpret in turn corporate governance both as a process and as a structure. After discussing the main theories of corporate governance (i.e. agency, stakeholder, stewardship and resource dependence theories), international and Italian models of corporate governance are compared by means of a comparative conceptual map. In particular, literature agrees that two model-archetypes exist: the Anglo-Saxon model and the German-Japanese model, which focus on agency and stakeholder theories respectively. It is important to note that the Italian model does not belong to either of the two archetypes above mentioned and presents some features which contrast with these models. In addition, the relationship between the Italian case and international corporate governance theories is not clear. Thus, the aim of this chapter is to understand the connection between the Italian model and international theories of corporate governance. It is fundamental to understand the type of theory that underlies the Italian model, in order to define theoretical assumptions capable of explaining Italian firms. Finally, the Italian model is based mainly on three different contrasting theories: the agency, the stakeholders and the resource dependence theories. The coexistence of different perspectives can be ascribed to the typical social-economic features of the national environment. These are the result of various interests and power balances marking out the company itself.

Chapter three describes the importance of the board of directors under the restrictive approach, i.e. agency theory. Boards act as a representative of shareholders and are considered as a major decision-making group (Kumar and Singh, 2013). The board is a corporate governance mechanism and control instrument to converge shareholders and management interests (Elsayed, 2011). Thus, we follow a “top-down approach”, i.e. we start by describing and discussing corporate governance in general terms using the principal theoretical approaches, then we focus our research on the particular mechanism of corporate governance, i.e. the board of directors related to firm performance. Furthermore, we describe the features of board of directors according to the US, UK, German, Japanese and Italian codes of best practice. As discussed in the previous chapter, Anglo-Saxon and German-Japanese models represent the two main corporate governance archetypes; whereas the Italian one is considered as mixed, a hybrid, i.e. it has some features in common with the above mentioned models while it also differs in some aspects. In particular, we study some ‘variables’ contained in codes of conduct which deal with what some boards of directors have defined as key success factors of corporate governance. Basically, we focus on: board of directors’ functions, composition and dimension, CEO duality and non-duality, committees and corporate governance disclosure. Secondly, we analyse those topics according to the main corporate governance international approaches, i.e. Agency, Stakeholder, Resource Dependence and Stewardship theories. Finally, we consider empirical research dealing with corporate governance topics
mentioned above. We find that the convergence of codes of best practice relating to Agency theory or Shareholder approach is ongoing. Globalization of relationships in stock and financial markets has led to a frequent review of national laws and regulations, according to paths consistent with culture, traditions and internal market conditions in each country, but at the same time, they are projected to international best practices application.

Chapter four focuses on research methodology. We describe research process and phases within the framework of philosophical assumptions. Indeed, models, concepts, theories, hypotheses, methodology and methods are explained. In particular, we point out that the present study adopts a positivism approach due to its relevance in this type of research; moreover, we apply quantitative methodology for our explanatory study. A deductive approach is adopted; theories are deductively tested from existing knowledge through developing hypothesized relations and proposed outcomes for study. We collected data through two methods: by studying annual corporate governance report and by using Dastastream. After collecting all the necessary data, we elaborated it in Stata 10 by creating an unbalanced panel data; we studied 54 companies over three years with around 154 observations. We tested OLS pooled, fixed effects and random effects models. However, both Hausman test and Breusch-Pagan test confirm that fixed effect model is the best and the most unbiased solution. For this reason, we adopted fixed effect model for our results. However, in order to obtain more robust results, we carried out the robustness test.

Chapter five makes up the bulk of the present research. There is considerable research on corporate governance single variables and firm performance in order to identify the kind of relationship that exists between board of directors and performance. Since the board has multifaceted tasks (O’Connel and Cramer, 2010; Ruigrok et al., 2006), it seems reasonable to assume that boards may affect firm performance. The present research takes into account seven key critical factors of corporate governance based on agency approach, namely we consider five aspects regarding Board of Directors structure (i.e. Board size, Independent directors, Executive directors, Non-executive directors, CEO duality) and two aspects related to Auditing mechanisms (i.e. Audit Committee, the so-called Big Four). Each of these aspects represents an independent variable of the econometric model that we built. For each of the seven variables we developed seven different research hypotheses based on existing international literature. We considered two different measures of firm performance, one based on market value (i.e. Tobin’s Q) and the other on accounting measure (ROE). In addition, different control variables have been included in the study based on prior studies, namely firm size, firm leverage, capital intensity, year of acceptance code of corporate governance. In particular, our research hypotheses are:

**Hp1:** Firm performance exhibits a negative association with board size.

63 Initially we considered as independent variables supervisory board size, too. However, we notice that there is no variation within and between company, i.e. the supervisory board of each company have three members for over the period 2005-2007.
Hp2: Firm performance exhibits a positive association with the proportion of independent directors on the board.

Hp3: Firm performance exhibits a positive association with a low proportion of Non-executive directors on the board.

Hp4: Firm performance exhibits a negative association with the proportion of Executive directors on the board.

Hp5: Firm performance exhibits a negative association under leadership structures that combine the roles of the CEO and Board President.

Hp6: Firm performance increases in presence of high number of Supervisory board member (dismiss)

Hp7: Firm performance increases in presence of Audit Committee.

Hp8: Firm performance increases in presence of the so-called Big Four.

We collected data for all Italian firms listed on STAR segment (Italian Stock Exchange) over the period 2005-2007, we deliberately left out the years prior to the recession: this was done in order to avoid its consequences influencing performance and consequently our results. Moreover, we studied firms listed on STAR segment, because they are the best Italian listed companies in terms of corporate governance. Indeed, according to Stock Exchange rules a firm can request listing in this segment only if it respects some strict criteria, namely it must provide excellence in terms of transparency and communication, liquidity and corporate governance. Furthermore, we present descriptive statistics about our unbalanced panel data consisting of 130-150 observations. The next research step was to test board features and its influence on firm performance; testing these characteristics on our population of Italian companies listed on STAR segment (Italian Stock Exchange) shows mixed results, not in accordance with agency theory. Our findings do not seem to be consistent with research hypotheses based on agency approach. In particular, we consider board size and composition, CEO duality, Audit Committee, Big Four, as a proxy of corporate governance and boards mechanisms, and firm performance measured by ROE and Tobin’s Q. Unlike agency theory assumptions, board composition (in particular independent and non-executive directors) negatively affects corporate performance. In addition, our findings show that the presence of CEO duality increases, rather than decreases, performance. Furthermore, we jointly tested the main control “device” within and outside board (i.e. independent directors, audit committee and Big Four) which should have influenced firm performance positively based on agency theory assumptions. However, mixed results were found. We do not find the clear and positive relationship between the control “device” and ROE, Tobin’s Q. In particular, Audit committee shows a
negative impact on firm performance this is however, not statistically significant; Big Four displays positive sign but no significant effect on performance, with the exception of one model. This model shows negative impact. Independent directors display negative correlation with performance, which is in total contrast to agency theory approach. However, our results confirm that good governance practices are not universal and may depend on market and firm characteristics (Black et al., 2010; Coles et al., 2008). Notwithstanding the mixed results, this study also contributes to the limited amount of existing literature on the association between corporate governance structure, auditing mechanism and firm performance in Italian economies.

Considering these mixed findings, it appears plausible to assume that we could adopt a different approach, which deals with complexity of board mechanisms and all multiple relationships existing within the board and the firm.

6.3 Final results: New Perspectives

Given that our results are mostly in contrast with our previous assumptions based on agency theory, we should probably adopt another approach, i.e. an alternative lens under which to interpret corporate governance mechanisms.

The need to build and develop alternative orienting theoretical frameworks is emerging (Huse 2007, 2009). Consistent with Dalton et al. (1998), our findings support the need to consider and adopt multiple theoretical framework in order to explain and better understand corporate governance mechanisms and processes.

After describing an alternative theoretical framework, it is useful to outline the reasons which explain why agency theory is so dominant in research and also outline its criticalness.

6.3.1 From Agency Theory ...

Our results are particularly interesting, because we can reach important conclusions. Indeed, our model, and our hypothesis is based on the analysis of the board of directors according to the well-known agency theory. In fact, the majority of board research has been dominated by agency theory perspective (Jensen and Meckling, 1976; Fama and Jensen, 1983). Studies in this stream of research point out formal incentives and monitoring mechanisms, in particular they emphasize the way in which boards can protect their own interests from opportunist managers through monitoring and bonding activities. The board of directors is considered as simply an information system –acting as a monitoring body for overseeing opportunistic management behaviour (Eisenhardt, 1989). It has also been treated as a shareholders’ tool, a tool through which those same shareholders
can protect their own interests against opportunist management behaviour by appointing board members (Kosnik, 1987). Furthermore, independent directors are seen as the central monitor of the company, because they are likely to be less compromised by agent influences than executive directors (Walsh and Seward, 1990). As the board should be independent from management to avoid managerial entrenchment (Eisenhardt, 1989), CEO duality negatively affects firm performance, because it directly conflicts with independence issue (Jensen, 1993; Lorsch and Maclver, 1993).

However, it is fundamental to highlight that related empirical research, like ours, has yielded conflicting and ambiguous findings. Before seeking to understand why agency theory may offer a limited view of the firm and before outlining new theoretical approaches, it is important to point out the possible reasons why agency theory is so widespread in research.

The popularity of agency theory in corporate governance literature is likely due to various factors. Firstly, it is a very simple theory in which only one relationship between agent and principal (shareholders and management) exists within a complex firm (Nordberg, 2011). Secondly, agency approach provides a plausible (Duska, 1992) and satisfactory explanation of the problems related with the separation between ownership, control, and governance mechanisms to solve the interests conflict between owners and managers (Huse et al., 2009). Thirdly, the issues of self-serving and self-interested managers and subjects unwilling to sacrifice their own interests for the interests of others are «both age old and widespread» (Daily et al., 2003: 372). Fourthly, agency theory has been treated as a universal theory which can be applied equally well in various institutional contexts (Ahrens et al., 2011). Fifthly, as Roberts et al. (2003) argue, agency theory can provide a rational explanation on how corporate governance mechanisms, structures and procedures work within the firm through two main control mechanisms: one external, the market for corporate control and the other internal, the board of directors with its independent directors.

It is difficult to really understand why empirical research of corporate governance – especially focusing on the board of directors – fails to explain universal constants (Ahrens et al., 2011). This is probably due to the fact that other factors influence firm performance; omitted and relevant variables, together with complex interactions could be fundamental drivers which, up to now, have not been considered or studied in depth. Daily et al. (2003) point out that several research studies conducted with *primary data* have a limited view of corporate governance processes and mechanisms. However, it is difficult to obtain data on board behaviour, even though some proxies are used (Huse et al., 2009). It is worth considering the fact that the availability of different kinds of data leads to limitations in terms of research outcomes.

Nonetheless, agency approach is common in corporate governance research. Increasingly literature has started to look more critically at the efficacy of agency theory and its
assumptions (Daily, Dalton and Cannella, Jr, 2003; Hermalin and Weisbach, 2003; Johnson, et al., 1996, Roberts et al., 2003). The main criticism are shown on table 6.1

Table 6.1 Some Agency theory criticism

<table>
<thead>
<tr>
<th>Agency theory criticism</th>
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<tr>
<td>● Lack of contingency perspective</td>
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<td>● Lack of behavioural perspective</td>
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<tr>
<td>● Lack of outside relationship</td>
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<td>● Lack of temporality</td>
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<td>● Oversimplified vision of the Company</td>
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<td>● Overly narrow theory</td>
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<tr>
<td>● Single institutional setting (i.e. US)</td>
</tr>
<tr>
<td>● Focus mostly on shareholders-management conflict and monitoring role of the Board</td>
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<tr>
<td>● Lack of analysis of economic competence</td>
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</table>

Several studies based on agency theory have been criticized for lacking both a *contingency* (Aguilera and Jackson 2003; Davis and Useem 2002) and a *behavioural* (Finkelstein and Mooney 2003; Forbes and Milliken 1999) perspective. The contingency approach is characterized by an emphasis on the context, considering the board as an open system, including broader stakeholder perspective and board interaction with the external context. The behavioural studies deal with actors, processes, and decision-making (Gabrielsson and Huse, 2004). The agency model does not deal with outside relationship of principal and agent. The only existing connection is with the contracting power (Hoskisson *et al.*, 2013). Furthermore, agency theory does not have a sense of temporality. This means that changes in contract (i.e. agent’s dismissal in case of poor firm performance) may happen, however the contracting period is indefinite, with both principal and agent playing their own roles as if they expect to be part of the contract/relationship for a long period of time (Hoskisson *et al.*, 2013).

It follows that the complexity of the situation does not correspond to the simple view of agency approach, i.e. singular identities, lack of outside relationship, a scarce sense of temporality. It means that agency theory has an *oversimplified vision* of the company; it fails to consider the complexity of the environment in which the firm operates and fails also to take into account the intricate mechanisms and procedures within the firm (Daily *et al.*, 2003b). Thus, the agency theory has been criticized because its unduly simplistic assumptions do not reflect the real environment, and because empirical research has failed to support its basic principles. For instance, it has been shown that agency theory provides a simplified explanation for executive and board behaviour (e.g., Cohen and Holder-Webb,
2006; Hendry, 2005; Kaufman and Englander, 2005; Lubatkin, 2005; Lubatkin et al., 2005; Brennan, 1994; Jensen and Meckling, 1994). Indeed, the theory adopts various basic principles, including a separation of ownership from control, information asymmetry caused by that separation, and self-interested behaviour of principal and agents (Cohen and Holder-Webb, 2006; Lubatkin et al., 2005; Noreen, 1988; Ferraro et al., 2005). In this regard, Cohen and Holder-Webb, 2006: 23) argue that «the theoretical inclusion of 'self-interest' in agency theory as a vehicle that narrowly advances the interest of the individual is at best debatable and, at worse, dubious». It follows that scholars (Ahrens et al., 2011; Filatochev and Boyd, 2009) point out that the agency theory with its focus mostly on shareholders is overly narrow, because it does not consider other stakeholders who may have different interests (Hirsch and Friedman, 1986).

In addition, some criticisms regard the limited scope of agency theory (e.g., Cohen and Holder-Webb, 2006; Lubatkin, 2005; Lubatkin, Lane, Collin, and Very, 2005; Roberts, McNulty, and Stiles, 2005). Accordingly, the agency theory has largely been defined by considering the US context, i.e. large, for-profit enterprises with mature capital markets and dispersed ownership. This institutional context has affected outcome, and also theory principles, for instance the nature of ownership and board involvement. However, the law and economics perspective (La Porta et al., 2000) reckon that different countries may have various corporate governance systems, leading to differences in the extent of and nature of agency problems within the company. In the same vein, Hall and Gingerich (2001) show that besides legal and economic features of a country, other factors may also influence the effectiveness and efficiency of national corporate system, such as stakeholder involvement, reputational consideration, minority’s protection, etc. It follows that agency theory is most likely not applicable in toto for most business companies located outside the U.S. (Lubatkin, 2005; Lubatkin et al., 2005).

Agency problems (conflicts arising from divergence between agents’ and principals’ interests and goals) are real and intractable (Lan and Heracleous, 2010). Indeed, directors’ primary duty is to maximize shareholder value and similarly Blair and Stout (2001: 407) state that «Provided the firm does not violate the law, directors ought to serve and be accountable only to the shareholders». However, the board of director role cannot be seen merely as a tool to monitor opportunist behaviour of management and to maximize shareholders value (Blair and Stout, 2001); rather directors’ tasks should be extended (Nordberg, 2007), for instance they serve as «mediating hierarchs’ charged with balancing the sometimes competing interests of a variety groups that participate in public corporation» (Blair and Stout, 2001: 409).

To quote Ahrens et al. (2011), agency approach does not consider economic competence of directors, principals, and agents. Indeed, measuring experience, expertise, skills, education among all parties involved within governance could change the primary goal of
corporate governance studies, i.e. independence. Similarly, Kirkpatrick (2009) recommends board members have industry experience to fulfil their role effectively.

These results suggest that an alternative theoretical framework is needed to effectively understand the potential of corporate governance (Daily et al., 2003). However, agency theory should not be totally discarded because it provides «a unique, realistic, and empirically testable perspective on problems of cooperative effects» (Eisenhardt, 1989: 72). So, agency theory is a starting point. Indeed, using the principal-agent relationship as a basic theoretical framework of research, this liaison could be expanded to a more complex setting of relations taking into account the existence of multiple principles of an agent (Daily et al., 2003).

These claims are consistent with the growing consensus among academics of boards and corporate governance regarding the need for theoretical pluralism (Hoskisson et al., 2002; Arthurs et al., 2008; Van Ees et al., 2009). In fact, some scholars deem that different theories provide complementary perspectives, and that none of these alone can give a full explanation, (e.g., Hung, 1998; Hillman and Dalziel, 2003; Lynall, Golden and Hillman, 2003). The need to go beyond and to broaden agency approach has been recognised among scholars (Daily et al., 2003b; Roberts et al., 2005; Ahrens et al., 2011). In this vein, academics seek to extend agency theory by considering the increased number of interests among managerial agents, agent-owners, principals, and other contracting subjects that play a fundamental role within company governance (Hoskisson et al., 2013). For instance, agency theory only takes into account the fact that agents have their own interests that can conflict with those of principals, but it does not consider the possibility that outside loyalties of agents may interfere with their ability to serve principals. Furthermore, academics are trying to move towards a more holistic view of the board, considering it as a group of individuals with their own intellectual capital (Nicholson and Kiel, 2004).

6.3.2 ... to Multiple Agency Theory

Given the increased variety of interests and potential conflict, not only between agent and principal but also among various interrelated parties, a new aspect of corporate governance analysis has been introduced. In particular, as Arthurs et al. (2008: 277) state «traditional agency theory examines conflicts of interest between a principal and agent; multiple agency theory examines conflicts of interests among more than one agent group when at least one of those agent is connected to a different principal».

Some scholars (Hung, 1998; Hoskisson et al., 2002; Huse et al., 2009; Hoskisson et al., 2013) introduce this different approach, even though it is not always defined as multiple agency theory. However, the principle and shared features are:

- Multiples principles and multiples agents
- Potential Conflicts among different parties (not only between agent and principal)
- Cooperation between principal and agents (not only opportunist behaviour)
- Focus on principal, agents, board members’ behaviour
- More attention paid to external context
- Analysis of quality, ability, expertise of board members as firm performance drivers

These characteristics lead to another interpretation of the main corporate governance success factors, such as the board of directors’ role, member independence, executives, non-executives, and CEO duality.

Multiple agency theory uses agent-principal relationship as basic tenet of analysis (Hung, 1998). In particular, the former considers many-to-many relationship, rather than one-to-one relationship, to clarify outcomes. It follows that this theoretical framework defines a situation in which “conflicting voices” among different principal groups may arise (Hoskisson et al., 2002) and circumstances in which each agent may deal with conflicting choices regarding interests of principals (Filatotchev, 2013). Furthermore, potential conflict between different agent-owners with various preferences regarding – for instance - innovation and the expenditures needed for innovation may arise (Kockhar and David, 1996; Bushee, 1998; Zahra, 1996). Other differences in opinion among owners could arise from firm strategies and their impact on the composition on the firm’s ownership (Connelly et al., 2010; Bushee and Noe, 2000; Woidke, 2002). This leads to claims that substantial ownership heterogeneity exists in many companies (Bennet et al., 2003), and that there are not only conflicts of interest between agent and principal – as agency theory deems – but also among principals; this is one of the assumptions of the multiple agency approach. In particular, both theoretical frameworks share the same tenet concerning the possibility for agent self-interested-seeking behaviour (Williamson, 1996). However, there are some differences between the two theories. First, multiple agency theory studies the dual identities of contracting parties (Pratt and Foreman, 2000), this means that some agents serve multiple principals, the latter could have multiple agents, and some companies could be both principal and agent (Hoskisson et al., 2013). Second, many contracting parties could have transcending relations (outwith the usual principal-agent relationship) which affect their behaviour as principal or agent. Third, when the relation among those contracting parties goes beyond principal-agent relationship, the former can lead to different investment horizons, which may affect appropriate incentives and undercut current responsibilities (Hoskisson et al., 2013). Thus, multiple agency theory extents the agency theory setting in terms of traditional conflict principal-agent; the former also considers the potential conflict among agent-owners representing ultimate principals, and other business parties and governance partners. Indeed, multiple agency theory points out that, unlike agency approach, principals could implement actions which are detrimental to the contracting relationship (agents, firms, etc.). Therefore, it seems plausible to assume that it is not always true that managerial behaviour is opportunist and self-seeking and
aimed at damaging agents’ interests. In fact, according to multiple agency approach, owners could fulfil guileful actions against contracting parties and managers should defend the company against opportunist behaviour by principal (Dalziel et al., 2011). It follows that the firm and its performance could benefit from managerial efforts to minimise opportunistic behaviour risk of principals.

In addition, multiple agency theory, unlike agency theory, focuses on the opportunities for cooperation between principals and agents. Hoskisson et al. (2009) claim that overseeing and bonding over time might be complementary rather than concurrent effects of corporate governance (Deutsch et al., 2011; Sundaramurthy and Lewis, 2003). There is some evidence suggested by Hoskisson et al. (2013) of cooperation and complementarities between agent and principal. For instance, Allcock and Filatotchev (2010) show that complementarities and cooperation may exist in case of incentive effects among IPO (Initial Public Offering) firms. In the same furrow, Gabrielsson and Huse (2004: 24) argue that «configurations of interdependent elements, and various governance structures should be seen as complements or substitutes». It is important to point out that it is in sharp contrast with agency theory assumption to consider behaviour as cooperative rather than conflictual. However, the importance of considering different theories as complementary, rather than competing allows for greater understanding of factors which may influence effective board governance (Shen, 2003; Sundaramurthy and Lewis, 2003)

Multiple agency theory also purposes to address internal and external powers that are exerted within the company, and it aims at understanding how the firm responds to those forces, through, for instance the functioning of the board of directors which may be considered as an agent for management (Hung, 1998). One of the internal forces may be contracting parties (e.g. agent, principal, directors) behaviour, whereas one of the external forces may be the context in which the firm performs.

Multiple agency theory focuses on behaviour (Gabrielsson and Huse, 2004) and behavioural processes (Hambrick et al., 2008) within the company, in contrast to agency approach in which behavioural insights are limited. In particular, on the one hand the latter considers agent as passive, opportunist and self-interested people who have to be controlled to avoid shirking (Mc Gregor, 1960). On the other hand, multiple agency theory (Hung, 1998) seeks to reconcile this view with the assumption of altruism and trust (Barney, 1990; Jones, 1995). Hambrick et al. (2008) research deals with behavioural perspectives on boards and governance, and its fundamental importance in understanding processes inside and outside the board of directors (Huse et al., 2009). In particular, multiple agency theory intends to borrow principles from the behavioural theory of the firm (Cyert and March, 1963; Wiseman and Gomez-Mejia) which focuses on understanding decision-making in companies. In brief, behavioural theory deals with

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64 Power is defined by Huse et al. (2009) as the ability to influence others. According to those researchers, powers or forces could be divided into four main categories: direct power, indirect power, conscience-controlling power and institutional power (Foulcat, 1982; Giddens, 1984 from Huse et al., 2009).
interactions and behavioural processes among subjects within and outside the board of directors. However, as Huse et al. (2009: 13) state, «more work remains to be done on boards», so it may be a challenge for scholars to investigate in depth the relationship between interactions and behavioural processes on boards and firm performance.

As regards the context, multiple agency theory does not focus on precise agency problems alone, because these may depend on national settings. It implies that scholars should combine agency perspective with the institutional analysis to predict robust assumption (Ahrens et al., 2011). In fact, fundamental governance factors may vary across countries and the nature of agency conflicts and their implications may differ from country to country (Aguilera and Jackson, 2003). Similarly, Gabrielsson and Huse (2004: 25) state that «documenting and explaining the diversity of governance systems between various contexts and organizational settings may then be of help to bring together past research findings. That will also help in recognizing problems stemming from previous universalistic approaches and general theorizing in research on boards and governance». Different legal traditions (e.g. common and civil law), and levels of economic development, together with different attitudes to rules and regulations contribute towards a diversification of content and environment where companies act (Emmons and Schmid, 1999). This is even more true if we consider that the recession has reinforced the importance of national context; some countries (e.g. Canada, Australia) have been less affected by financial crisis through a more conservative regulation system (Ahrens et al., 2011). The ability to subscribe investment, strategic and financial contracts may depend also on a number of factors relating to the institutional environment (Kaplan et al., 2004; Dharwadkar et al., 2000; Douma et al., 2006) For this reason, it is difficult to consider a single and dominant model (Hung, 1998) of corporate governance, i.e. agency theory. It is necessary to take into account the complexity of internal and external forces which are entrenched with governance mechanisms involving multifaceted issues (Hung, 1998).

Finally, multiple agency theory takes into account intellectual capital, especially regarding board members (Nicholson and Kiel, 2004). In particular, in order to capture the complexity of governance mechanisms in terms of a more holistic view, scholars split intellectual capital into four categories: 1) human capital (individual director’s skills, knowledge, expertise); 2) social capital (implicit and tangible resources which derive from internal and external relationship); 3) structural capital (policies, processes and procedures developed by directors over time); 4) cultural capital (external social expectations of the firm and the board). It follows that agency theory can interpret only part of the complexity of the relationship issue, and it fails to represent a satisfactory and acceptable version of reality (Nicholson and Kiel, 2004; Solomon, 2011).
6.3.3 New interpretation attempts of governance mechanisms

As stated before, multiple agency theory has a broader approach than agency one and introduces the notion of complexity which exists both within and outside the company (Arthurs et al., 2008) Re-conceptualization of board composition, and roles have been proposed.

According to multiple agency theory, the board of directors is an agent of the management, and directors of the board have, in turn, multiple principals (Hung, 1998). This multiple-principal model highlights the fact that board members can serve more than one principal. Indeed, the board should not only monitor management – as agency theory posits – but it should assist and collaborate with the latter. At the same time, considering the fact that the director can be agent of a certain group of stakeholders, he or she has to be accountable to this group for the decisions that the board takes (Hung, 1998). Furthermore, Finkelstein and Mooney (2003) reckon that board effectiveness may also depend on quality of directors, and their ability. The accent is placed on how to develop group and team dynamics. In sum, multiple agency theory goes beyond control of managers who act on behalf of owners. Similarly, Hermalin and Weisbach (2003: 9) point out that «the press regularly chides boards for being insufficiently vigilant guardians of other people’s money and being too much in management’s hands». This could mean that board of directors issues could be complex and entail more than a monitoring and controlling role with respect to potential opportunist managerial actions (Norderberg, 2011). Some elements which are pivotal and fundamental are not considered within agency theoretical framework. For instance, to be effective the board should assist and not control management of their firm (Hung, 1998). The challenge for directors is to build and hold trust in their relationship with managers, executives, and other parties (Daily et al., 2003). The board of directors is redefined or re-conceptualized; Hung (1998: 4) argues that it is «a socio-economic statutory institution that acts as strategic bonding agent of the management of an organization to lead, assist, and support the management in achieving the objectives of its organization». As aforementioned, the board of directors’ task is not only to monitor management, but also should fulfil a multiple role which involves, assisting, supporting, mediating, leading, etc.

As regards board composition, multiple agency theory states that the board is agent of management and those directors, especially independent ones, could have different principals of their own: the management is the principal of the board and stakeholders are links; shareholders, creditors, creditors and suppliers are multiple principals of independent directors (Hung, 1998). This approach considers independent directors not only as a monitoring device of the board but also fundamental for formulating strategies, co-opting external threats, securing valuable external resources. As far as executive directors are concerned, agency theory deems that they are one of the creators of agency problems. However, according to multiple agency theory, insiders are conceived as directors who provide monitoring protection against agents and principals with shorter-term horizons.
(Arthurs et al., 2008). In general terms, the multiple agency theory takes into account sets of preferences and values of board members (Fredrickson et al., 2008), because it may have significant effect on firm performance (Hung, 1998). In addition, it posits that directors are agents of different stakeholders, their presence should indicate that the firm looks after these stakeholders. «This in fact reflects the organization’s perception and prioritization of the impact of the external environment. The composition of a board of directors should therefore give a picture of how the organization responds to the external challenges» (Hung, 1998: 13). In the same vein, Finkelstein and Mooney (2003) and Huse et al. (2009) suggest that board effectiveness does not only depend on the ability of the board to monitor agents, but also on the quality of single members, his/her own skills, expertise, and the ability to create a real coordinate pool of directors.

One of the main assumptions of agency theory is the avoidance of CEO duality; it recommends that chairman is independent and therefore CEO cannot fulfil the role of chairperson. However, there is not much evidence supporting multiple agency theory claims. Krause et al. (2014) argue that agency and stewardship theories present some limitations, so the need for alternative theoretical approach arises. They propose institutional theory which, according to Hung (1998) acknowledges the fact that directors have multiple principals, this, could be reconciled with agency approach in the study of board performance and effectiveness. Krause et al. (2014) admit that there is too little research on CEO duality. One of the main drivers is legitimacy. This is «a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate» (Suchman, 1995: 574 through Krause et al., 2014: 279). Scholars question firm choice regarding CEO duality, is it chosen due to genuine concern for board independence (as agency theory indicates) or does it reflect the desire for greater legitimacy in the financial context? It seems that there is neither a single nor a clear-cut answer to this question. On the one hand, CEO duality may compromise firm legitimacy in some contexts, but on the other hand, it may sustain firm legitimacy in other environments. Besides legitimacy, other pivotal and crucial factors must be considered in terms of CEO duality choice under institutional lens. The choice between CEO duality and non-duality depends on firm history influence, preferences, values of its leaders, and founders (Anderson and Reeb, 2004; Nelson, 2003).

In light of the above, multiple agency theory may help us to understand various aspects of corporate governance that go beyond the «traditional narrow incentive and monitoring notions of traditional agency theory» (Hoskisson et al., 2013: 696). The breadth of the former could allow researchers to explore fundamental issues related to the agent, principal, and board of directors, which are not explained by agency theory.

It is noteworthy that some scholars claim that multiple agency theory should be integrated with other theoretical approaches, such as stakeholder theory, stewardship theory, and resource dependence theory. In other words, multiple agency theory adopts the basic
assumption, i.e. agency-principal relationship, and then scholars reconcile the former with other theories and perspectives (Hung, 1998). It is reasonable to infer that there is an increasing need for theoretical pluralism. Indeed, the belief that the different theoretical approaches provide complementary perspectives, and that none of them alone can provide a full explanation, seems to have gained consensus among researchers (e.g., Hung, 1998; Hillman and Dalziel, 2003; Lynall, Golden and Hillman, 2003; Van Ees et al., 2009). This is consistent with the claim of Krause et al. (2014) who reckon that corporate governance literature tests much theory but builds little theory. This is due to the fact that data for building theory is not readily available, whereas data for testing theory is easier to obtain.

6.4 Answers to Research Questions

Research questions should focus on the subject area and be specific in terms of the problem which researcher tries to answer (Remenyi, 1998). In general, business and management researchers ask questions related to how and why (Remenyi, 1998).

In particular, after critical analysis of literature related to corporate governance and board of directors and audit mechanisms, we formulated two research questions. As far as the first one is concerned,

RQ 1) How can Board of Directors affect firm performance in Italian listed companies?

We maintain that the board of directors can affect firm performance in Italian listed companies through its size and composition, and the kind of leadership adopted (i.e. CEO duality or Non-CEO duality). We find that a larger board size is associated with poorer firm performance, showing that an increase in the number of board members means a decrease in performance. Thus, consistent with codes of best practices the board should not be so large as to be unwieldy. Moreover, all types of directors (independents, non-executives and executives) affect negatively firm performance probably because of the high presence of interlocking. However, directors do not affect long-term performance; thus, board composition does not really matter (Hermalin and Weisbach, 1991). It follows that executives, non-executives and independents could be equally bad or good at representing shareholders’ preferences.

We should consider all multiple relations, not only the basic one, i.e. agent-principal. Indeed, the board is not only the link between shareholders and management, but it is also an agent of management and directors have in turn multiple principals (Hung, 1998). Thus, the positive effect of CEO duality, in contrast with agency theory, may be due to the fact that the board should assist, support, mediate, advice managers and not simply monitor them.

As far as the second Research Question is concerned,
RQ 2) How can monitoring processes affect firm performance in Italian listed companies?

We could argue that monitoring processes are implemented by the board, its committees and the external auditor, namely Big Four or Non-Big Four. According our results, those gatekeepers do not seem to be particularly effective in monitoring firm processes, opportunist behaviour, and do not affect firm performance. For instance, we should also consider other factors related with Audit Committee (Klein, 2002; Bryan et al., 2004). We believe that testing the presence of different audit bodies within company is essential to understand whether Italian companies generally comply with the Code of Corporate Governance and are aligned with the international best practices. However, it is also fundamental to test other drivers (Klein, 1998). Furthermore, the mere presence of monitoring processes within the company is not sufficient to affect firm performance. Compliance with the code which recommends: the setting up of audit committee, the presence of a certain number of independents and compulsory external audit is in itself not enough. Consistent with O’Neal and Thomas (1995), it is the lack of appropriate board structures that could contribute to the common perception that boards are ineffective.

6.5 Areas for Future Research

Future research should expand on multiple agency theory and explicitly examine the nature of agency conflicts and their implications in different institutional contexts.

As Daily et al. (2003) and Huse et al. (2009) suggest, researchers should 1) dismantle fortresses of the agency approach; 2) open the black box of the board processes; 3) focus on actual board behaviour. In brief, it is necessary to develop a more comprehensive and holistic view of board of directors, relationship ownership-management. There is a need to re-conceptualize the corporate governance issues within the agency theory approach. Daily et al. (2003) suggest that researchers should go beyond protecting their own fortress of study.

However, in order to adopt new approach methods and analyse results according to new viewpoints it is necessary to clear hurdles which are beyond researchers’ control. One new approach, as Daily et al. (2003) suggest, is to gain access to the types of process-oriented data which may improve understanding of corporate governance mechanisms. Indeed, to gain access to this kind of data is very difficult and, the cooperation of board of directors is needed. Another hurdle may be the so-called empirical dogmatism. Scholars prefer to «embrace a research paradigm that fits a rather narrow conceptualization of the entirety of corporate governance to the exclusion of alternative paradigms» (Daily et al., 2003: 379). Researchers are not favourably disposed towards adopting theoretical frameworks which contradict dominant governance models and theories. In addition, an over-reliance on agency theory approach is rooted in various disciplines, such as economics, law,
finance, and management (Huse et al., 2003). It would be desirable to consider more aspects and also different aspects to enhance future research.

We measure firm performance using two proxies ROE and Tobin’s Q which are consistent with previous works (Yermack, 1996, Bebchuck et al., 2005). However, Tobin’s Q does not always measure effectively firm performance (Koerniadi and Tourani-Rad, 2012). It may also represent growth opportunities connected not with managerial decisions but with external conditions (Pham, et al., 2007). It follows that we could use other performance measures. For instance, Elali (2006) argues that Economic Value Added (EVA) outperforms Tobin’s Q in explaining shareholder wealth. Moreover, there have been a limited number of research studies that directly study the impact of independent directors on firm performance using EVA, some from Adjaoud et al. (2007), Pham et al. (2008), and Koerniadi and Tourani-Rad (2012).

A future study may include other variables which could help explain the relationship between board of director structures, controlling mechanism and their impact on firm performance. For instance, the board size alone, without detailing how their responsibilities are delegated, does not reveal board effects on performance. Other variables, which must be tested, are the number of different “chairs” that director should, the ownership composition, even though data on the latter is not so easy to collect for Italian companies. We should also consider other factors related with audit committee (Klein, 1998, 2002; Bryan et al., 2004), such as the degree of independence in audit committee members, expertise (Chan and Li, 2008), education, professional background, number of meeting per year, interaction of committee members with other internal or external control bodies. The literature review and our contribution indicate that other research is needed in this direction so as to be able to compare firms in cross-country studies.

Indeed, consistent with Hansmann and Kraakman (2004); Sudarsanam and Broadhurst (2012), as convergence towards Anglo-American model exists, it would be interesting to compare Italian and UK listed companies to analyse similarities and differences between those European countries. Furthermore, before comparing Italian and UK listed companied, it may be useful to extend the research to all Italian firms listed on Italian Stock Exchange in order to understand if they confirm the same features, trends, and results found with respect to firms listed on STAR segment.

In order to obtain a clearer pattern (if one exists), the study period should be increased to analyse those periods where economic conjuncture is negative; hence, the value of good corporate governance is potentially higher. Furthermore, it could be interesting to analyse how effects of board of directors on firm performance change over 10 years.
REFERENCES


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APPENDICES

STATA 10 OUTPUT

(1) MODEL

. correlate roe boardsize
(obs=144)

|      roe boardsize
------------------
roe |   1.0000
boardsize | 0.1953   1.0000

. reg roe boardsize firmleverage roa lntotalasset capitalintensity

           Source |       SS       df       MS              Number of obs =     124
----------------------------------------- F(  5,   118) = 50.70
Model |  15640.6185     5   3128.1237           Prob > F      =  0.0000
Residual |  7280.21768   118    61.69676           R-squared     =  0.6824
          ---------+------------------ Adj R-squared =  0.6689
Total |  22920.8362   123  186.348262           Root MSE      =  7.8547
### xtreg \( \text{roe} \) boardsize firmleverage roa lntotalasset capitalintensity, fe

#### Fixed-effects (within) regression

| Coef.   | Std. Err. | t    | P>|t|   |
|---------|-----------|------|-------|
| boarysize | -4.117314 | 3.435219 | -1.20  | 0.233 |
| firmleverage | 15.57433 | 4.602394 | 3.38  | 0.001 |
| roa | 1.460037 | 0.1064761 | 13.71  | 0.000 |
| lntotalasset | 2.44473 | 0.9234796 | 2.65  | 0.009 |
| capitalintensity | 2.140032 | 0.6204058 | 3.45  | 0.001 |
| _cons | -38.25426 | 9.348386 | -4.09  | 0.000 |

Number of obs = 124

Group variable: company2

Number of groups = 48

R-sq: within = 0.5066

Obs per group: min = 1
between = 0.2196
avg = 2.6
overall = 0.1988
max = 3

\( F(5,71) \) = 14.58

corr(u_i, Xb) = -0.4542

Prob > F = 0.0000

---

### xtreg \( \text{roe} \) boardsize firmleverage roa lntotalasset capitalintensity, fe

#### Fixed-effects (within) regression

| Coef.   | Std. Err. | t    | P>|t|   |
|---------|-----------|------|-------|
| boarysize | -1.856303 | 1.203841 | -1.54  | 0.128 |
| firmleverage | -26.95668 | 9.240549 | -2.92  | 0.005 |
| roa | 1.361252 | 0.2046318 | 6.65  | 0.000 |
| lntotalasset | -1.441648 | 3.583565 | -0.40  | 0.689 |
| capitalintensity | 0.1520901 | 0.8678803 | 0.18  | 0.861 |
| _cons | 48.97175 | 42.61412 | 1.15  | 0.254 |

Number of obs = 124

Group variable: company2

Number of groups = 48

R-sq: within = 0.5066

Obs per group: min = 1
between = 0.2196
avg = 2.6
overall = 0.1988
max = 3

\( F(5,71) \) = 14.58

corr(u_i, Xb) = -0.4542

Prob > F = 0.0000

---
\[
\begin{align*}
\text{sigma}_u & \mid 12.978275 \\
\text{sigma}_e & \mid 5.4667774 \\
\rho & \mid .84930686 \quad \text{(fraction of variance due to u}_i\text{)}
\end{align*}
\]

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F test that all u\_i=0: \( F(47, 71) = 3.67 \quad \text{Prob > F} = 0.0000 \)

\[. \text{xtreg \ roe boardsize firmleverage roa ln\text{total}\_asset capital\text{intensity}, re theta}\]

Random-effects GLS regression

\[
\begin{align*}
\text{Number of obs} & = 124 \\
\text{Group variable: company2} & \quad \text{Number of groups} = 48
\end{align*}
\]

R\-sq: within = 0.3820 \quad \text{Obs per group: min} = 1
between = 0.7397 \quad \text{avg} = 2.6
overall = 0.6708 \quad \text{max} = 3

Random effects u\_i \sim \text{Gaussian} \quad \text{Wald chi2(5)} = 162.90
\text{corr(u}_i, X) = 0 \quad \text{(assumed)} \quad \text{Prob > chi2} = 0.0000

---

\text{theta} ---

\[
\begin{align*}
\text{min} & \mid 0.2817 \\
5\% & \mid 0.2817 \\
\text{median} & \mid 0.4880 \\
95\% & \mid 0.4880 \\
\text{max} & \mid 0.4880
\end{align*}
\]

---

\text{roe} \mid \quad \text{Coef.} \quad \text{Std. Err.} \quad z \quad P>|z| \quad [95\% \text{ Conf. Interval}]

\[
\begin{align*}
\text{boardsize} & \mid -.4896995 \quad .4528489 \quad -1.08 \quad 0.280 \quad -1.377267 \quad .397868 \\
\text{firmleverage} & \mid 7.891845 \quad 5.59169 \quad 1.41 \quad 0.158 \quad -3.067666 \quad 18.85136 \\
\text{roa} & \mid 1.458761 \quad .1245784 \quad 11.71 \quad 0.000 \quad 1.214591 \quad 1.70293 \\
\text{ln\text{total}\_asset} & \mid 2.491562 \quad 1.217784 \quad 2.05 \quad 0.041 \quad .1047496 \quad 4.878375 \\
\text{capital\text{intensity}} & \mid 1.292582 \quad .6162818 \quad 2.10 \quad 0.036 \quad .0846917 \quad 2.500472 \\
\_\text{cons} & \mid -32.72381 \quad 12.80523 \quad -2.56 \quad 0.011 \quad -57.8216 \quad -7.626032
\end{align*}
\]

---

\text{sigma}_u \mid 5.2945905

---
sigma_e |  5.4667774  
rho |  .48400363  (fraction of variance due to u_i)  

. quietly xtreg  roe boardsize firmleverage roa lntotalasset capitalintensity, fe  

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<td>2.491562</td>
<td>-3.93321</td>
<td>3.370302</td>
<td></td>
</tr>
<tr>
<td>capitalint-y</td>
<td>.1520901</td>
<td>1.292582</td>
<td>-1.140492</td>
<td>.6110753</td>
<td></td>
</tr>
</tbody>
</table>

b = consistent under Ho and Ha; obtained from xtreg  
B = inconsistent under Ha, efficient under Ho; obtained from xtreg  

Test:  Ho: difference in coefficients not systematic
\[ \chi^2(5) = (b-B)'[(V_b-V_B)^(-1)](b-B) \]
\[ = 33.42 \]
\[ \text{Prob}>\chi^2 = 0.0000 \]

. quietly xtreg roe boardsize firmleverage roa lntotalasset capitalintensity, re

. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

\[ \text{roe}[\text{company2},t] = Xb + u[\text{company2}] + e[\text{company2},t] \]

Estimated results:
<table>
<thead>
<tr>
<th></th>
<th>Var</th>
<th>sd = sqrt(Var)</th>
</tr>
</thead>
<tbody>
<tr>
<td>roe</td>
<td>186.3483</td>
<td>13.65094</td>
</tr>
<tr>
<td>e</td>
<td>29.88565</td>
<td>5.466777</td>
</tr>
<tr>
<td>u</td>
<td>28.03269</td>
<td>5.29459</td>
</tr>
</tbody>
</table>

Test: \ Var(u) = 0

\[ \chi^2(1) = 7.93 \]
\[ \text{Prob} > \chi^2 = 0.0049 \]

xtreg roe boardsize firmleverage roa lntotalasset capitalintensity, fe vce (cluster company2)

Fixed-effects (within) regression

Number of obs = 124
Group variable: company2
Number of groups = 48

\[ \text{R}-\text{sq: within} = 0.5066 \]  
Obs per group: min = 1
\[ \text{between} = 0.2196 \]  
avg = 2.6
\[ \text{overall} = 0.1988 \]  
max = 3
F(5, 47) = 13.71

corr(u_i, Xb) = -0.4542

Prob > F = 0.0000

(Std. Err. adjusted for 48 clusters in company2)

<table>
<thead>
<tr>
<th></th>
<th>Robust</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.       Std. Err.   t  P&gt;</td>
</tr>
<tr>
<td>-----</td>
<td>--------------</td>
</tr>
<tr>
<td>roe</td>
<td></td>
</tr>
<tr>
<td>boardsize</td>
<td>-1.856303    1.18728  -1.56  0.125  -4.244802    .5321952</td>
</tr>
<tr>
<td>firmleverage</td>
<td>-26.95668    18.03651  -1.49  0.142  -63.24145    9.328094</td>
</tr>
<tr>
<td>roa</td>
<td>1.361252    .3673366  3.71  0.001    .6222666    2.100238</td>
</tr>
<tr>
<td>lntotalasset</td>
<td>-1.441648    4.349771  -0.33  0.742  -10.19226    7.308961</td>
</tr>
<tr>
<td>capitalint-y</td>
<td>.1520901    .977499  0.16  0.877  -1.814384    2.118564</td>
</tr>
<tr>
<td>_cons</td>
<td>48.97175    46.12662  1.06  0.294  -43.82304    141.7665</td>
</tr>
<tr>
<td>-----</td>
<td>--------------</td>
</tr>
<tr>
<td>sigma_u</td>
<td>12.978275</td>
</tr>
<tr>
<td>sigma_e</td>
<td>5.4667774</td>
</tr>
<tr>
<td>rho</td>
<td>.84930686  (fraction of variance due to u_i)</td>
</tr>
<tr>
<td>-----</td>
<td>--------------</td>
</tr>
</tbody>
</table>
(2) MODEL

. correlate roe boardsize ceodualitydummy
(obs=144)

|          | roe | boards~e ceodual~y
|----------|-----|---------------------
| roe      | 1.0000 |
| boardsize | 0.1953 | 1.0000 |
| ceoduality-y | -0.0149 | -0.1012 | 1.0000 |

. reg roe boardsize ceodualitydummy firmleverage roa lntotalasset capitalintensity

Source | SS    | df    | MS       | Number of obs = 124
-------|-------|-------|----------|-------------------
Model  | 15725.0695 | 6 | 2620.84491 | F( 6, 117) = 42.61
Residual | 7195.7667 | 117 | 61.5022795 | Prob > F = 0.0000
Total   | 22920.8362 | 123 | 186.348262 | R-squared = 0.6861
                  |       |       | Adj R-squared = 0.6700 | Root MSE = 7.8423

|          | Coef.   | Std. Err. | t      | P>|t|   | [95% Conf. Interval] |
|----------|---------|-----------|--------|-------|----------------------|
| roe      |         |           |        |       |                      |
| boardsize | -.4267647 | .3432199 | -1.24 | 0.216 | -1.106494 - .2529644 |
| ceoduality-y | 1.835989 | 1.566799 | 1.17  | 0.244 | -1.266975 4.938953 |
| firmleverage | 15.84462 | 4.60092 | 3.44  | 0.001 | 6.732744 24.95651 |
| roa      | 1.438466 | .1078902 | 13.33 | 0.000 | 1.224795 1.652137 |
| lntotalasset | 2.825486 | .9776021 | 2.89  | 0.005 | .8893962 4.761576 |
| capitalint-y | 2.14324 | .6194332 | 3.46  | 0.001 | .9164847 3.369995 |
| _cons   | -43.61885 | 10.39593 | -4.20 | 0.000 | -64.20745 -23.03026 |
Fixed-effects (within) regression
Number of obs = 124
Group variable: company2
Number of groups = 48

R-sq: within = 0.5274
Obs per group: min = 1
between = 0.1620
avg = 2.6
overall = 0.1471
max = 3

F(6,70) = 13.02
corr(u_i, Xb) = -0.5532
Prob > F = 0.0000

---------------------------------------------------------------------
     roe |      Coef.   Std. Err.     t    P>|t|     [95% Conf. Interval]
-----|-------------|------------------|------|---------|------------------|------------------|
   boardsize |  -2.09047   1.194099  -1.75  0.084     -4.472026    .2910857
 ceodualitydummy |  4.56657   2.603466   1.75  0.084     -.6258784    9.759018
          roa |   1.338003   .2021383   6.62  0.000     .934851    1.741155
 lntotalasset | -1.519384   3.532558  -0.43  0.668      -8.564849    5.526081
 capitalintensity |  .0713025   .8566991   0.08  0.934      -1.63733    1.779935
        _cons |   51.85048   42.03632   1.23  0.222     -31.98831    135.6893
---------------------------------------------------------------------
sigma_u |   14.347975
 sigma_e |   5.3885421
        rho |   .8763872   (fraction of variance due to u_i)
---------------------------------------------------------------------
F test that all u_i=0:   F(47, 70) = 3.78     Prob > F = 0.0000
. xtreg roe boardsize ceoduality dummy firmleverage roa lntotalasset
capitalintensity, re theta

Random-effects GLS regression Number of obs = 124
Group variable: company2 Number of groups = 48

R-sq: within = 0.3861 Obs per group: min = 1
between = 0.7375 avg = 2.6
overall = 0.6725 max = 3

Random effects u_i ~ Gaussian Wald chi2(6) = 160.09
corr(u_i, X) = 0 (assumed) Prob > chi2 = 0.0000

------------------- theta -------------------
min 5% median 95% max
0.2926 0.2926 0.4997 0.4997 0.4997

----------------------- roe -----------------------
| Coef. Std. Err. z P>|z| [95% Conf. Interval]
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>boardsize</td>
</tr>
<tr>
<td>ceoduality-y</td>
</tr>
<tr>
<td>firmleverage</td>
</tr>
<tr>
<td>roa</td>
</tr>
<tr>
<td>lntotalasset</td>
</tr>
<tr>
<td>capitalint-y</td>
</tr>
<tr>
<td>_cons</td>
</tr>
</tbody>
</table>

----------------------- sigma_u -----------------------
sigma_u | 5.3847353

----------------------- sigma_e -----------------------
sigma_e | 5.3885421

----------------------- rho -----------------------
rho | .49964664 (fraction of variance due to u_i)
. quietly xtreg roe boardsize ceodualitydummy firmleverage roa ln(totalasset capitalintensity, fe

. estimates store fixed

. quietly xtreg roe boardsize ceodualitydummy firmleverage roa ln(totalasset capitalintensity, re

. estimates store random

. hausman fixed random
<table>
<thead>
<tr>
<th></th>
<th>(b)</th>
<th>(B)</th>
<th>(b-B)</th>
<th>sqrt(diag(V_b-V_B))</th>
</tr>
</thead>
<tbody>
<tr>
<td>fixed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>random</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>S.E.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>boardsize</td>
<td>-2.09047</td>
<td>-.5112886</td>
<td>-1.579181</td>
<td>1.102098</td>
</tr>
<tr>
<td>ceoduality~y</td>
<td>4.56657</td>
<td>1.190834</td>
<td>3.375736</td>
<td>1.853833</td>
</tr>
<tr>
<td>firmleverage</td>
<td>-29.87637</td>
<td>7.534262</td>
<td>-37.41064</td>
<td>7.339155</td>
</tr>
<tr>
<td>roa</td>
<td>1.338003</td>
<td>1.448506</td>
<td>-.110532</td>
<td>.157682</td>
</tr>
<tr>
<td>lntotalasset</td>
<td>-1.519384</td>
<td>2.723892</td>
<td>-4.243276</td>
<td>3.292014</td>
</tr>
<tr>
<td>capitalint~y</td>
<td>.0713025</td>
<td>1.274128</td>
<td>-1.202825</td>
<td>.5934984</td>
</tr>
</tbody>
</table>

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

\[ \text{chi2}(6) = (b-B)'[\{V_b-V_B\}^{-1}](b-B) \]

= 39.54

Prob>chi2 = 0.0000

. quietly xtreg roe boardsize ceodualitydummy firmleverage roa lntotalasset capitalintensity, re

. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

\[ \text{roe[company2,t]} = Xb + u[company2] + e[company2,t] \]

Estimated results:

<table>
<thead>
<tr>
<th></th>
<th>Var</th>
<th>sd = sqrt(Var)</th>
</tr>
</thead>
<tbody>
<tr>
<td>roe</td>
<td>186.3483</td>
<td>13.65094</td>
</tr>
<tr>
<td>e</td>
<td>29.03639</td>
<td>5.388542</td>
</tr>
<tr>
<td>u</td>
<td>28.99537</td>
<td>5.384735</td>
</tr>
</tbody>
</table>
Test: Var(u) = 0

\[
\text{chi2(1)} = 6.81 \\
\text{Prob > chi2} = 0.0091
\]

```
. xtreg roe boardsize ceodualitydummy firmleverage roa lntotalasset capitalintensity, fe vce (cluster company2)
```

Fixed-effects (within) regression

<table>
<thead>
<tr>
<th>Group variable: company2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of obs = 124</td>
</tr>
<tr>
<td>Number of groups = 48</td>
</tr>
</tbody>
</table>

R-sq: within = 0.5274

| Obs per group: |
| min = 1 |
| avg = 2.6 |
| max = 3 |

F(6,47) = 15.64

\[
\text{corr(u_i, Xb)} = -0.5532 \\
\text{Prob > F} = 0.000
\]

(Std. Err. adjusted for 48 clusters in company2)

| | Robust |
|-------------------------|
| roe | Coef. | Std. Err. | t | P>|t| | [95% Conf. Interval] |
|-------------------------|
| boardsize | -2.09047 | 1.225065 | -1.71 | 0.095 | -4.554983 | .3740429 |
| ceoduality-y | 4.56657 | 2.933366 | 1.56 | 0.126 | -1.334601 | 10.46774 |
| firmleverage | -29.87637 | 15.51854 | -1.93 | 0.060 | -61.09564 | 1.342892 |
| roa | 1.338003 | .3573244 | 3.74 | 0.000 | .6191592 | 2.056847 |
| lntotalasset | -1.519384 | 4.021135 | -0.38 | 0.707 | -9.608864 | 6.570096 |
| capitalint-y | 0.0713025 | .9705447 | 0.07 | 0.942 | -1.881182 | 2.023787 |
| _cons | 51.85048 | 44.04572 | 1.18 | 0.245 | -36.75808 | 140.459 |
|-------------------------|
| sigma_u | 14.347975 |
| sigma_e | 5.3885421 |
| rho | 0.8763872 | (fraction of variance due to u_i) |
|-------------------------|
(3) **MODEL**

\[
\text{. correlate roe boardsize auditcommittee dummy big4dummy}
\]

(obs=144)

|      roe boards~e auditc~y big4du~y 
|------------------------------------
|------------------------------------
| r(e) | 1.0000 
| boardsize | 0.1953 1.0000 
| auditcomm~y | -0.0303 0.1231 1.0000 
| big4dummy | 0.2517 0.3094 -0.0933 1.0000 

\[
\text{. reg roe boardsize auditcommittee dummy big4dummy firmleverage roa}
\]

Source | SS df MS 
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>14297.8463 5 2859.56925</td>
<td>F( 5, 119) = 39.38</td>
</tr>
<tr>
<td>Residual</td>
<td>8640.39351 119 72.6083488</td>
<td>Prob &gt; F = 0.0000</td>
</tr>
<tr>
<td>Total</td>
<td>22938.2398 124 184.985805</td>
<td>R-squared = 0.6233</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| roe | Coef. Std. Err. t P>|t| [95% Conf. Interval] |
|-----|-------|-------|-------|-------------------|
| boardsize | -.213007 .3415897 -0.62 0.534 -.8893887 .4633747 |
| auditcomm~y | 1.061177 3.976548 0.27 0.790 -6.812785 8.93514 |
| big4dummy | 3.51364 2.070998 1.70 0.092 -.5871434 7.614423 |
| firmleverage | 17.14967 4.360555 3.93 0.000 8.515337 25.78401 |
| roa | 1.475713 .1151122 12.82 0.000 1.247779 1.703647 |
| _cons | -12.0627 5.097614 -2.37 0.020 -22.15648 -1.968913 |

275
. xtreg roe boardsize auditcommettedummy big4dummy firmleverage roa, fe

Fixed-effects (within) regression
Number of obs = 125
Group variable: company2
Number of groups = 48

R-sq: within = 0.5142
    Obs per group: min = 1
    between = 0.2452
              avg = 2.6
    overall = 0.2335
              max = 3

F(5, 72) = 15.24
corr(u_i, Xb) = -0.4162
Prob > F = 0.0000

-----------------------------------------------------------------------------
     roe |      Coef.   Std. Err.     t    P>|t|     [95% Conf. Interval]
-------------+-------------------------------------------------------------
  boardsize  |  -1.876758   .8997373  -2.09  0.041    -3.670352   -0.0831645
  auditcommettedummy |  -6.670061   4.757063  -1.40  0.165   -16.15309    2.812971
  big4dummy |   .5783773   6.671021   0.09  0.931  -12.72006   13.87681
  firmleverage |  -27.53681   9.015582  -3.05  0.003  -45.50905  -9.564575
  roa |   1.32143   .1958562   6.75  0.000   .9309978   1.711862
  _cons |   38.25141   11.31885   3.38  0.001   15.6877    60.81513
-------------+-------------------------------------------------------------

sigma_u |  12.507698
sigma_e |  5.3934867
rho |  .84320944   (fraction of variance due to u_i)
-------------------------------------------------------------
F test that all u_i=0:    F(47, 72) = 4.79   Prob > F = 0.0000

. xtreg roe boardsize auditcommettedummy big4dummy firmleverage roa, re
theta

Random-effects GLS regression
Number of obs = 125
Group variable: company2
Number of groups = 48
R-sq: within = 0.3836          Obs per group: min = 1
between = 0.6700               avg = 2.6
overall = 0.5983               max = 3

Random effects u_i ~ Gaussian   Wald chi2(5) = 130.00
corr(u_i, X) = 0 (assumed)      Prob > chi2 = 0.0000

------------------- theta -------------------
min      5%       median        95%      max
0.3452   0.3452     0.5526     0.5526   0.5526

------------------------------------------------------------------------------
roe |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------
    +-----------------------------------------------------------
    boardsize | -.3823429   .450431   -0.85   0.396    -1.265171    .680457
    auditcommety | -3.830084   4.210955   -0.91   0.363    -12.0834    4.423236
    big4dummy |   3.077058   2.867497    1.07   0.283   -2.543133    8.697249
    firmleverage |  7.302012   5.595552    1.30   0.192   -3.665069   18.26909
    roa |   1.446149   .1316835   10.98   0.000    1.188054    1.704244
    _cons |   .4093873   6.210685    0.07   0.947   -11.76333    12.58211
    +-----------------------------------------------------------
sigma_u |  6.2251798
sigma_e |  5.3934867
rho |  .57121757   (fraction of variance due to u_i)
------------------------------------------------------------------------------

. quietly xtreg   roe boardsize  auditcommetedummy big4dummy firmleverage  roa, fe
. estimates store fixed

. quietly xtreg   roe boardsize  auditcommetedummy big4dummy firmleverage  roa, re
. estimates store random

. hausman fixed random

<table>
<thead>
<tr>
<th></th>
<th>(b)</th>
<th>(B)</th>
<th>(b-B)</th>
<th>sqrt(diag(V_b-V_B))</th>
</tr>
</thead>
<tbody>
<tr>
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<td>random</td>
<td>Difference</td>
<td>S.E.</td>
</tr>
<tr>
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<td>-1.876758</td>
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<td>-1.494415</td>
<td>.7788704</td>
</tr>
<tr>
<td>auditcomme-y</td>
<td>-6.670061</td>
<td>-3.830084</td>
<td>-2.839977</td>
<td>2.213032</td>
</tr>
<tr>
<td>big4dummy</td>
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<td>3.077058</td>
<td>-2.498681</td>
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</tr>
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<td>firmleverage</td>
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<td>7.302012</td>
<td>-34.83882</td>
<td>7.068983</td>
</tr>
<tr>
<td>roa</td>
<td>1.32143</td>
<td>1.446149</td>
<td>-.1247193</td>
<td>.1449797</td>
</tr>
</tbody>
</table>

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

\[
\chi^2(5) = (b-B)'[(V_b-V_B)^{(-1)}](b-B)
\]

\[
= 33.30
\]

Prob>\chi^2 = 0.0000

. xtreg roe boardsize auditcomme-y big4dummy firmleverage roa, fe vce (cluster company2)

Note: robust covariance is not full rank; F test numerator degrees of freedom is 4 instead of 5

Fixed-effects (within) regression

<table>
<thead>
<tr>
<th></th>
<th>Number of obs = 125</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group variable: company2</td>
<td>Number of groups = 48</td>
</tr>
</tbody>
</table>

R-sq: within = 0.5142  Obs per group: min = 1
between = 0.2452  avg = 2.6
overall = 0.2335                                      max = 3

F(4, 47) = 4.89                                       Prob > F = 0.0022

corr(u_i, Xb) = -0.4162

(Std. Err. adjusted for 40 clusters in company2)

|            | Robust
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
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<tr>
<td></td>
<td>Coef.</td>
<td>Std. Err.</td>
<td>t</td>
<td>P&gt;</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>boar</td>
<td>size</td>
<td>-1.876758</td>
<td>.5428453</td>
<td>-3.46</td>
</tr>
<tr>
<td>a</td>
<td>uditcomme</td>
<td>y</td>
<td>-6.670061</td>
<td>4.173499</td>
</tr>
<tr>
<td>big4dummy</td>
<td>.5783773</td>
<td>1.600048</td>
<td>0.36</td>
<td>0.719</td>
</tr>
<tr>
<td>firmleverage</td>
<td>-27.53681</td>
<td>17.49355</td>
<td>-1.57</td>
<td>0.122</td>
</tr>
<tr>
<td>roa</td>
<td>1.32143</td>
<td>.3350928</td>
<td>3.94</td>
<td>0.000</td>
</tr>
<tr>
<td>_cons</td>
<td>38.25141</td>
<td>12.8402</td>
<td>2.98</td>
<td>0.005</td>
</tr>
<tr>
<td>sigma_u</td>
<td>12.507698</td>
<td></td>
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<td></td>
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<tr>
<td>sigma_e</td>
<td>5.3934867</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>rho</td>
<td>.84320944</td>
<td>(fraction of variance due to u_i)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(4) MODEL

. correlate roe ids executedirectors nonexecutedirectors ceodualitydummy
(obs=143)

|      roe      ids executedirs nonexecdirs ceoduality |
|-----------------|-----------------|-----------------|-----------------|
| roe | 1.0000 | 0.0980 | 0.0065 | 0.1688 | -0.0112 |
| ids | 1.0000 | 0.2529 | 0.2529 | 0.0710 | -0.0941 |
| exec | 0.0980 | 0.2529 | 1.0000 | -0.4076 | 1.0000 |
| nonex | 0.0065 | 0.2529 | -0.4076 | 1.0000 |
| ceo | 0.1688 | 0.0710 | 0.0065 | -0.0941 |

. reg roe ids executedirectors nonexecutedirectors ceodualitydummy
firmleverage ln(total asset) YearAcceptCode roa

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>Number of obs = 125</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>14850.0707</td>
<td>8</td>
<td>1856.25883</td>
<td>F(  8,  116) = 26.62</td>
</tr>
<tr>
<td>Residual</td>
<td>8088.16911</td>
<td>116</td>
<td>69.7255958</td>
<td>Prob &gt; F = 0.0000</td>
</tr>
<tr>
<td>Total</td>
<td>22938.2398</td>
<td>124</td>
<td>184.985805</td>
<td>R-squared = 0.6474</td>
</tr>
</tbody>
</table>

  Adj R-squared = 0.6231
  Root MSE = 8.3502
|                | Coef.  | Std. Err. | t    | P>|t|   | [95% Conf. Interval] |
|----------------|--------|-----------|------|-------|----------------------------|
| ids            | -1.21785 | .9197663  | -1.32| 0.188 | -3.039563 - 0.6038635      |
| executives-s   | -0.0725298 | .7006131  | -0.10| 0.918 | -1.460182 - 1.315123      |
| nonexecutives | -0.2779999 | .425542   | -0.65| 0.515 | -1.120839 - 0.5648396     |
| ceoduality-y   | 1.940055  | 1.711964  | 1.13 | 0.259 | -1.450706 - 5.330815      |
| firmleverage   | 12.82028  | 4.890887  | 2.62 | 0.010 | 3.13326 - 22.5073         |
| lntotalasset   | 3.086276  | 1.041754  | 2.96 | 0.004 | 1.02295 - 5.149601        |
| YearAccept-e   | -0.4986206 | .3607853  | -1.38| 0.170 | -1.213201 - 0.2159602     |
| roa            | 1.410247  | .1156863  | 12.19| 0.000 | 1.181115 - 1.639378       |
| _cons          | -39.0875  | 11.3766   | -3.44| 0.001 | -61.62028 - 16.55471      |

.xtreg roe ids executives directors nonexecutives directors ceoduality dummy firmleverage lntotalasset YearAccept Code roa, fe

Fixed-effects (within) regression
Number of obs      =       125
Group variable: company2
Number of groups   =        48

R-sq: within = 0.5251
    between = 0.2199
    overall = 0.2021

Obs per group: min =         1
                avg =       2.6
                max =         3

F(8,69)      =  9.54
corr(u_i, Xb) = -0.4894
Prob > F      =  0.0000
|                  | Coef.    | Std. Err. | t       | P>|t|  | [95% Conf. Interval] |
|------------------|----------|-----------|---------|------|---------------------|
| ids              | -2.119013| 1.635689  | -1.30   | 0.199| -5.382123 to 1.144096|
| executed directors | -2.358839| 1.382522  | -1.71   | 0.092| -5.116895 to 0.3992164|
| nonexecutives    | -1.968755| 1.087067  | -1.81   | 0.074| -4.137395 to 0.1998852|
| ceoduality dummy | 5.068885 | 2.747527  | 1.84    | 0.069| -4.122803 to 10.55005|
| firmleverage     | -29.57142| 9.422089  | -3.14   | 0.002| -48.36797 to -10.77486|
| ln total asset   | 0.293063 | 4.052472  | 0.07    | 0.942| -7.786154 to 8.382767|
| Year Accepted    | -0.4775907| 0.8201789 | -0.58   | 0.562| -2.113803 to 1.158621|
| roa              | 1.308784 | 0.2136318 | 6.13    | 0.000| 0.8826005 to 1.734968|
| _cons            | 32.33362 | 49.29284  | 0.66    | 0.514| -66.0029 to 130.6701 |

\[
\sigma_u = 13.315136 \\
\sigma_e = 5.4472398 \\
\rho = 0.85663091 \text{ (fraction of variance due to } u_i) \]

F test that all \( u_i = 0 \): \( F(47, 69) = 4.33 \)  \( \text{Prob > F} = 0.0000 \)

```
xtdreg roe ids executed directors nonexecutives ceoduality dummy 
firmleverage ln total asset Year Accepted Code roa, re theta 
```
--- theta ---

<table>
<thead>
<tr>
<th></th>
<th>min</th>
<th>5%</th>
<th>median</th>
<th>95%</th>
<th>max</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.3484</td>
<td>0.3484</td>
<td>0.5557</td>
<td>0.5557</td>
<td>0.5557</td>
<td></td>
</tr>
</tbody>
</table>

```
. quietly xtreg roe ids executivedirectors nonexecutivedirectors ceodualitydummy firmleverage lntotalasset YearAcceptCode roa, f > e
. estimates store fixed

. quietly xtreg roe ids executivedirectors nonexecutivedirectors ceodualitydummy firmleverage lntotalasset YearAcceptCode roa, re
. estimates store random
. hausman fixed random
```
### Coefficients

<table>
<thead>
<tr>
<th></th>
<th>(b)</th>
<th>(B)</th>
<th>(b-B)</th>
<th>sqrt(diag(V_b-V_B))</th>
</tr>
</thead>
<tbody>
<tr>
<td>fixed</td>
<td>random</td>
<td>Difference</td>
<td>S.E.</td>
<td></td>
</tr>
<tr>
<td>ids</td>
<td>-2.119013</td>
<td>-.372181</td>
<td>-1.746832</td>
<td>1.276333</td>
</tr>
<tr>
<td>executives</td>
<td>-2.358839</td>
<td>-.7334057</td>
<td>-1.625434</td>
<td>1.093658</td>
</tr>
<tr>
<td>nonexecutives</td>
<td>-1.968755</td>
<td>-.7406843</td>
<td>-1.228071</td>
<td>.9384248</td>
</tr>
<tr>
<td>ceoduality-dummy</td>
<td>5.068885</td>
<td>1.85656</td>
<td>3.212325</td>
<td>1.933175</td>
</tr>
<tr>
<td>firmleverage</td>
<td>-29.57142</td>
<td>2.257999</td>
<td>-31.82942</td>
<td>7.33382</td>
</tr>
<tr>
<td>lntotalasset</td>
<td>.2983063</td>
<td>3.243113</td>
<td>-2.944807</td>
<td>3.813353</td>
</tr>
<tr>
<td>YearAccept-code</td>
<td>-.4775907</td>
<td>-.8160859</td>
<td>.3384951</td>
<td>.698464</td>
</tr>
<tr>
<td>roa</td>
<td>1.308784</td>
<td>1.408693</td>
<td>-.0999091</td>
<td>.1682798</td>
</tr>
</tbody>
</table>

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

\[
\text{chi2}(8) = (b-B)'[(V_b-V_B)^{-1}](b-B)
\]

\[
= 26.30
\]

Prob>chi2 = 0.0009

. quietly xtreg roe ids executivedirectors nonexecutivedirectors ceodualitydummy firmleverage lntotalasset YearAcceptCode roa, r > e

. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

\[
\text{roe}[\text{company2,t}] = Xb + u[\text{company2}] + e[\text{company2,t}]
\]
Estimated results:

<table>
<thead>
<tr>
<th></th>
<th>Var</th>
<th>sd = sqrt(Var)</th>
</tr>
</thead>
<tbody>
<tr>
<td>roe</td>
<td>184.9858</td>
<td>13.60095</td>
</tr>
<tr>
<td>e</td>
<td>29.67242</td>
<td>5.44724</td>
</tr>
<tr>
<td>u</td>
<td>40.2137</td>
<td>6.341427</td>
</tr>
</tbody>
</table>

Test: Var(u) = 0

\[ \chi^2(1) = 14.40 \]

\[ \text{Prob} > \chi^2 = 0.0001 \]

```
. xtreg roe ids executivedirectors nonexecutivedirectors ceodualitydummy firmleverage lntotalasset YearAcceptCode roa, fe vce (cluster company2)
```

Fixed-effects (within) regression

<table>
<thead>
<tr>
<th></th>
<th>Number of obs</th>
<th>Number of groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>125</td>
<td>48</td>
</tr>
</tbody>
</table>

R-sq: within = 0.5251 Obs per group: min = 1
between = 0.2199 avg = 2.6
overall = 0.2021 max = 3

\[ F(8,47) = 10.30 \]

\[ \text{corr}(u_i, Xb) = -0.4894 \] Prob > F = 0.0000

(Std. Err. adjusted for 48 clusters in company2)
<table>
<thead>
<tr>
<th></th>
<th>Robust</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.</td>
</tr>
<tr>
<td>----------------</td>
<td>--------</td>
</tr>
<tr>
<td>ids</td>
<td>-2.119013</td>
</tr>
<tr>
<td>executive-s</td>
<td>-2.358839</td>
</tr>
<tr>
<td>nonexecutive-s</td>
<td>-1.968755</td>
</tr>
<tr>
<td>ceoduality-y</td>
<td>5.068885</td>
</tr>
<tr>
<td>firmleverage</td>
<td>-29.57142</td>
</tr>
<tr>
<td>lntotalasset</td>
<td>.2983063</td>
</tr>
<tr>
<td>YearAccept-e</td>
<td>-.4775907</td>
</tr>
<tr>
<td>roa</td>
<td>1.308784</td>
</tr>
<tr>
<td>_cons</td>
<td>32.33362</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>sigma_u</td>
<td>13.315136</td>
</tr>
<tr>
<td>sigma_e</td>
<td>5.4472398</td>
</tr>
<tr>
<td>rho</td>
<td>.85663091 (fraction of variance due to u_i)</td>
</tr>
</tbody>
</table>
(5) MODEL

. correlate roe auditcommettedummy big4dummy ids
(obs=144)

<table>
<thead>
<tr>
<th></th>
<th>roe auditcommettedummy big4dummy ids</th>
</tr>
</thead>
<tbody>
<tr>
<td>roe</td>
<td>1.0000</td>
</tr>
<tr>
<td>auditcommettedummy</td>
<td>-0.0506 1.0000</td>
</tr>
<tr>
<td>big4dummy</td>
<td>0.2546 -0.0848 1.0000</td>
</tr>
<tr>
<td>ids</td>
<td>0.0979 0.0764 0.3216 1.0000</td>
</tr>
</tbody>
</table>

. reg roe auditcommettedummy big4dummy ids firmleverage lntotalasset capitalintensity YearAcceptCode

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>Number of obs = 126</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>4575.79396</td>
<td>7</td>
<td>653.684852</td>
<td>F( 7, 118) = 4.17</td>
</tr>
<tr>
<td>Residual</td>
<td>18496.2844</td>
<td>118</td>
<td>156.748173</td>
<td>Prob &gt; F = 0.0004</td>
</tr>
<tr>
<td>Total</td>
<td>23072.0784</td>
<td>125</td>
<td>184.576627</td>
<td>R-squared = 0.1983</td>
</tr>
</tbody>
</table>

-------------------------------------------------------------------------------------------------------------------------------------

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### xtreg roe auditcommetteedummy big4dummy ids firmleverage lntotalasset capitalintensity YearAcceptCode, fe

**Fixed-effects (within) regression**

- **Number of obs** = 126
- **Number of groups** = 48

**R-sq:**
- **within** = 0.2339
- **between** = 0.1125
- **overall** = 0.0634

- **F(7,71) = 3.10**
- **corr(u_i, Xb) = -0.7957**
- **Prob > F = 0.0066**

| Variable         | Coef.     | Std. Err.    | t     | P>|t|   | [95% Conf. Interval] |
|------------------|-----------|--------------|-------|-------|----------------------|
| auditcomme-y     | -10.31354 | 6.162319     | -1.67 | 0.099 | -22.60085             |
| big4dummy        | -4.565908 | 8.677795     | -0.53 | 0.600 | -21.86894             |
| ids              | -2.29745  | 1.807068     | -1.27 | 0.208 | -5.90064              |
| firmleverage     | -33.11587 | 11.77098     | -2.81 | 0.006 | -56.58653             |
| lntotalasset     | -5.349245 | 5.087134     | -1.05 | 0.297 | -15.4927              |
| capitalint-y     | 1.739299  | .8475857     | 2.05  | 0.044 | 0.0492607             |
| _cons            | -37.51923 | 16.61782     | -2.26 | 0.026 | -70.42703             |
YearAccept-e |    .949092   .9834201     0.97   0.338  
        -1.011792    2.909976    
_cons |   109.2139    61.4724     1.78   0.080  
        -13.35853    231.7864

-----------------------------------------------------
sigma_u |  20.283125
sigma_e |   6.957835
rho |  .89471571   (fraction of variance due to u_i)

-----------------------------------------------------
F test that all u_i=0:     F(47, 71) =     6.62              Prob > F = 0.0000

.*xtreg roe auditcommettedummy big4dummy ids  firmleverage lntotalasset capitalintensity YearAcceptCode, re theta

Random-effects GLS regression                      Number of obs      =       126
Group variable: company2                          Number of groups   =        48

R-sq: within  = 0.1221                          Obs per group: min =         1
between  = 0.1140                                avg =       2.6
overall  = 0.1542                                max =         3

Random effects u_i ~ Gaussian                  Wald chi2(7)       =     16.41
corr(u_i, X) = 0 (assumed)                    Prob > chi2         =    0.0216

----------------------- theta ----------------------
    min       5%   median      95%   max
0.4841   0.4841    0.6716    0.6716  0.6716
| Variable         | Coef.  | Std. Err. | z     | P>|z|  | 95% Conf. Interval |
|------------------|--------|-----------|-------|------|-------------------|
| auditcommetteedummy | -7.3105 | 5.517417  | -1.32 | 0.185 | -18.12444 - 3.503438 |
| big4dummy        | 2.258336 | 4.689894  | 0.48  | 0.630 | -6.933687 - 11.45036 |
| ids              | -0.6512815 | 1.4695    | -0.44 | 0.658 | -3.531449 - 2.228886 |
| firmleverage     | -9.159389 | 8.543527  | -1.07 | 0.284 | -25.9044 - 7.585617 |
| lntotalasset     | 3.769896 | 2.072269  | 1.82  | 0.069 | -2916767 - 7.831469 |
| capitalintensity | 1.786715 | .794908   | 2.25  | 0.025 | 0.228735 - 3.344706 |
| YearAcceptCode   | -0.9530413 | .6004399 | -1.59 | 0.112 | -2.129882 - .2237992 |
| _cons            | -20.17474 | 23.20382  | -0.87 | 0.385 | -65.6534 - 25.30392 |

sigma_u | 11.553676
sigma_e | 6.957835
rho     | .73385507 (fraction of variance due to u_i)

. quietly xtreg roe auditcommetteedummy big4dummy ids firmleverage lntotalasset capitalintensity YearAcceptCode, fe

. estimates store fixed

. quietly xtreg roe auditcommetteedummy big4dummy ids firmleverage lntotalasset capitalintensity YearAcceptCode, re

. estimates store random

. hausman fixed random

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### Coefficients

<table>
<thead>
<tr>
<th></th>
<th>(b)</th>
<th>(B)</th>
<th>(b-B)</th>
<th>sqrt(diag(V_b-V_B))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fixed</td>
<td>random</td>
<td>Difference</td>
<td>S.E.</td>
</tr>
<tr>
<td>auditcomme-y</td>
<td>-10.31354</td>
<td>-7.3105</td>
<td>-3.003039</td>
<td>2.744501</td>
</tr>
<tr>
<td>big4dummy</td>
<td>-4.565908</td>
<td>2.258336</td>
<td>-6.824244</td>
<td>7.301303</td>
</tr>
<tr>
<td>ids</td>
<td>-2.29745</td>
<td>-.6512815</td>
<td>-1.646168</td>
<td>1.051695</td>
</tr>
<tr>
<td>firmleverage</td>
<td>-33.11587</td>
<td>-9.159389</td>
<td>-23.95648</td>
<td>8.097162</td>
</tr>
<tr>
<td>lntotalasset</td>
<td>-5.349245</td>
<td>3.769896</td>
<td>-9.119141</td>
<td>4.645927</td>
</tr>
<tr>
<td>capitalint-y</td>
<td>1.739299</td>
<td>1.786715</td>
<td>-.0474161</td>
<td>.2941475</td>
</tr>
<tr>
<td>YearAccept-e</td>
<td>.949092</td>
<td>-.9530413</td>
<td>1.902133</td>
<td>.7788369</td>
</tr>
</tbody>
</table>

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test:  Ho: difference in coefficients not systematic

\[
\text{chi2}(7) = (b-B)'[(V_{b-V_B})^{-1}](b-B)  
\]

\[
= 15.79  
\]

\[
\text{Prob>chi2} = 0.0271  
\]

. quietly xtreg roe auditcomme-teedummy big4dummy ids firmleverage lntotalasset capitalintensity YearAcceptCode, re

. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

\[
\text{roe[company2,t]} = Xb + u[company2] + e[company2,t]  
\]
Estimated results:

<table>
<thead>
<tr>
<th>Var     sd = sqrt(Var)</th>
</tr>
</thead>
<tbody>
<tr>
<td>---------+----------------+----------</td>
</tr>
<tr>
<td>roe</td>
</tr>
<tr>
<td>e</td>
</tr>
<tr>
<td>u</td>
</tr>
</tbody>
</table>

Test:  Var(u) = 0

\[
\text{chi}^2(1) = 29.17 \\
\text{Prob} > \text{chi}^2 = 0.0000
\]

.xtreg roe auditcommettedummy big4dummy ids firmleverage lntotalasset capitalintensity YearAcceptCode, fe vce (cluster company2)

note: robust covariance is not full rank; F test numerator degrees of freedom is 6 instead of 7

Fixed-effects (within) regression

<table>
<thead>
<tr>
<th>Number of obs</th>
<th>126</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group variable: company2</td>
<td>48</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R-sq:</th>
<th>Obs per group: min</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>within = 0.2339</td>
<td>avg = 2.6</td>
<td></td>
</tr>
<tr>
<td>between = 0.1125</td>
<td>max = 3</td>
<td></td>
</tr>
<tr>
<td>overall = 0.0634</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| F(6,47) | 51.40 |
| corr(u_i, Xb) = -0.7957 | Prob > F = 0.0000 |
(Std. Err. adjusted for 48 clusters in company2)

<table>
<thead>
<tr>
<th></th>
<th>Robust</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.  Std. Err.  t  P&gt;</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>auditcomm_y</td>
<td>-10.31354  1.844535 -5.59 0.000 -14.02427 -6.602814</td>
</tr>
<tr>
<td>big4dummy</td>
<td>-4.565908  1.47187 -3.10 0.003 -7.526929 -1.604887</td>
</tr>
<tr>
<td>ids</td>
<td>-2.29745   2.063288 -1.11 0.271 -6.44825   1.853351</td>
</tr>
<tr>
<td>firmleverage</td>
<td>-33.11587  23.04797 -1.44 0.157 -79.4824   13.25066</td>
</tr>
<tr>
<td>lntotalasset</td>
<td>-5.349245  5.232698 -1.02 0.312 -15.87608  5.177586</td>
</tr>
<tr>
<td>capitalint_y</td>
<td>1.739299   .7637535  2.28 0.027  2.028246  3.275773</td>
</tr>
<tr>
<td>YearAccept_e</td>
<td>.949092    1.010967  0.94 0.353 -1.084711  2.982895</td>
</tr>
<tr>
<td>_cons</td>
<td>109.2139   57.65614  1.89 0.064 -6.77524   225.2031</td>
</tr>
</tbody>
</table>

| sigma_u  | 20.283125 |
| sigma_e  | 6.957835  |
| rho      | .89471571 (fraction of variance due to u_i) |
(6) model

```
. correlate tobinsq boardsize
(obs=141)

    |    tobinsq boards~e
-------------+------------------
tobinsq |  1.0000
boardsize |   0.1339   1.0000
-------------+------------------
```

```
xtreg   tobinsq boardsize firmleverage roa lntotalasset capitalintensity, fe
```

```
Fixed-effects (within) regression               Number of obs      =       123
Group variable: company2                        Number of groups  =        48
                                R-sq:  within  = 0.2221                         Obs per group: min =         1
                                between = 0.1161                                        avg =       2.6
                                overall = 0.0902                                        max =         3

                                F(5,70)            =      4.00
corr(u_i, Xb)  =  -0.6287                        Prob > F           =    0.0030

------------------------------------------------------------------------------
tobinsq | Coef.   Std. Err.     t    P>|t|     [95% Conf. Interval]
-------------+---------------------------------------------
  boardsize  | -0.001415    .1179329  -0.01    0.990    -0.2366248    .2337949
  firmleverage |   1.714012    .9527924   1.80    0.076    -0.1862725    3.614296
  roa         |   .064846     .0234568   2.76    0.007   -.0180628    .1477538
  lntotalasset | -1.084004    .3488293  -3.11    0.003   -1.779722    -.3882862
  capitalint~y |  -.0878199    .0855237  -1.03    0.308   -.2583916    .0827518
    _cons    |   13.62978    4.149859    3.28    0.002     5.353151    21.90642
------------------------------------------------------------------------------
sigma_u |  1.2282213
```

294
\[
\begin{align*}
\sigma_e & \quad 0.53213253 \\
\rho & \quad 0.84195668 \quad \text{(fraction of variance due to } u_i) \\
\end{align*}
\]

F test that all } u_i = 0: \quad F(47, 70) = 6.23 \quad \text{Prob } > \text{ F} = 0.0000

xtreg \quad \text{tobinsq boardsize firmleverage roa lntotalasset capitalintensity, fe vce}
\text{(cluster company2)}

\begin{align*}
\text{Fixed-effects (within) regression} \\
\text{Group variable: company2} \\
\text{Number of obs } & = 123 \\
\text{Number of groups } & = 48 \\
\text{R-sq: within } & = 0.2221 \\
\text{Obs per group: min } & = 1 \\
\text{between } & = 0.1161 \\
\text{avg } & = 2.6 \\
\text{overall } & = 0.0902 \\
\text{max } & = 3 \\
\text{F(5,47)} & = 6.77 \\
\text{corr}(u_i, Xb) & = -0.6287 \\
\text{Prob } > \text{ F} & = 0.0001 \\
\end{align*}

(Std. Err. adjusted for 48 clusters in company2)

\begin{align*}
| & \quad \text{Robust} \\
\text{tobinsq} & \quad \text{Coef.} \quad \text{Std. Err.} \quad t \quad P>|t| \quad [95\% \text{ Conf. Interval}] \\
\end{align*}

\begin{align*}
\text{boardsize} & \quad -0.001415 \quad 0.0641991 \quad -0.02 \quad 0.983 \quad -0.1305669 \quad 0.127737 \\
\text{firmleverage} & \quad 1.714012 \quad 1.457934 \quad 1.18 \quad 0.246 \quad -1.218974 \quad 4.646998 \\
\text{roa} & \quad 0.064846 \quad 0.0156854 \quad 4.13 \quad 0.000 \quad 0.0332911 \quad 0.0964009 \\
\text{lntotalasset} & \quad -1.084004 \quad 0.3138529 \quad -3.45 \quad 0.001 \quad -1.715395 \quad -0.4526137 \\
\text{capitalintensity} & \quad -0.0878199 \quad 0.0575887 \quad -1.52 \quad 0.134 \quad -0.2036734 \quad 0.0280337 \\
\_cons & \quad 13.62978 \quad 3.052563 \quad 4.47 \quad 0.000 \quad 7.488819 \quad 19.77075 \\
\end{align*}

\begin{align*}
\sigma_u & \quad 1.2282213 \\
\sigma_e & \quad 0.53213253 \\
\rho & \quad 0.84195668 \quad \text{(fraction of variance due to } u_i) \\
\end{align*}
(7) Model

. correlate tobinsq boardsize ceodualitydummy
(obs=141)

<table>
<thead>
<tr>
<th></th>
<th>tobinsq</th>
<th>boards<del>e ceodua</del>y</th>
</tr>
</thead>
<tbody>
<tr>
<td>tobinsq</td>
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<td></td>
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<tr>
<td>boardsize</td>
<td>0.1339</td>
<td>1.0000</td>
</tr>
<tr>
<td>ceoduality~y</td>
<td>-0.0274</td>
<td>-0.1359  1.0000</td>
</tr>
</tbody>
</table>

. xtreg tobinsq boardsize ceodualitydummy firmleverage roa lntotalasset capitalintensity, fe

Fixed-effects (within) regression
Number of obs = 123
Group variable: company2
Number of groups = 48

R-sq: within = 0.2237
between = 0.1107
overall = 0.0862

F(6, 69) = 3.31
corr(u_i, Xb) = -0.6455
Prob > F = 0.0063

|           | Coef.  | Std. Err. | t     | P>|t|    | [95% Conf. Interval] |
|-----------|--------|-----------|-------|--------|----------------------|
|           |        |           |       |        |                      |
| boardsize | -0.0060076 | .1192952 | -0.05 | 0.960 | -0.2439949  .2319797 |
| ceoduality-y | .0972271 | .2594861 | 0.37  | 0.709 | -.4204336  .6148877 |
| firmleverage | 1.642559 | .9774793 | 1.68  | 0.097 | -.3074588  3.592577 |
| roa       | .0639848 | .0237138 | 2.70  | 0.009 | .016677  .1112926 |
| lntotalasset | -1.085727 | .3510211 | -3.09 | 0.003 | -1.785995  -.3854587 |
| capitalint-y | -.089146 | .0861265 | -1.04 | 0.304 | -.2609636  .0826716 |
| _cons     | 13.69566 | 4.179276 | 3.28  | 0.002 | 5.358231  22.03309 |

------------------------------------------------------------------------------
\[
\begin{align*}
\sigma_u & | 1.2478668 \\
\sigma_e & | .53543025 \\
\rho & | .84451856 \quad \text{(fraction of variance due to } u_i) \\
\end{align*}
\]

F test that all } u_i = 0: \quad F(47, 69) = 6.10 \quad \text{Prob} > F = 0.0000

\[. \text{xtreg tobinsq boardsize ceodualitydummy firmleverage roa lntotalasset capitalintensity, fe vce (cluster company2)}\]

\begin{align*}
\text{Fixed-effects (within) regression} & \quad \text{Number of obs} = 123 \\
\text{Group variable: company2} & \quad \text{Number of groups} = 48 \\
R^2: \text{within} & = 0.2237 \\
\text{between} & = 0.1107 \\
\text{overall} & = 0.0862 \\
F(6,47) & = 10.21 \\
\text{corr}(u_i, Xb) & = -0.6455 \\
\text{Prob} > F & = 0.0000
\end{align*}

(Std. Err. adjusted for 48 clusters in company2)
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<thead>
<tr>
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<th>Robust</th>
</tr>
</thead>
<tbody>
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</tr>
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<td>boardsize</td>
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</tr>
<tr>
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<td>firmleverage</td>
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<td>_cons</td>
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<td>sigma_u</td>
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<td>sigma_e</td>
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<tr>
<td>rho</td>
<td>.84451856</td>
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</tbody>
</table>

298
(8) Model

corr = correlate  tobinsq boardsize auditcommetteedummy big4dummy
(oobs=141)

|   tobinsq boards~e auditc~y big4du~y
-------------------------------
| tobinsq |   1.0000
| boardsize |   0.1339 | 1.0000
| auditcomme-y |   0.0651 | 0.1253 | 1.0000
| big4dummy |   0.0285 | 0.3060 | -0.0847 | 1.0000

. xtreg tobinsq boardsize auditcommetteedummy big4dummy firmleverage, fe

Fixed-effects (within) regression Number of obs = 141
Group variable: company2 Number of groups = 52

R-sq: within = 0.0073
       between = 0.0130
       overall = 0.0071
Obs per group: min = 1
          avg = 2.7
          max = 3

F(4, 85) = 0.16
corr(u_i, Xb) = -0.1984 Prob > F = 0.9599
| Variable     | Coef.  | Std. Err. | t     | P>|t| | 95% Conf. Interval |
|--------------|--------|-----------|-------|-----|------------------|
| boardsize    | -0.0179 | 0.0901    | -0.20 | 0.843 | -0.1970668 to 0.1612897 |
| auditcomme-y | -0.0771 | 0.4950    | -0.16 | 0.877 | -1.061336 to 0.9071783 |
| big4dummy    | 0.1235  | 0.6897    | 0.18  | 0.858 | -1.247797 to 1.494864 |
| firmleverage | 0.6034  | 0.8142    | 0.74  | 0.461 | -1.015494 to 2.222241 |
| _cons        | 1.4786  | 1.0780    | 1.37  | 0.174 | -0.6648159 to 3.621979 |

**sigma_u**: 1.1025346  
**sigma_e**: 0.56194596  
**rho**: 0.79378978 (fraction of variance due to u_i)

F test that all u_i=0:  F(51, 85) = 9.35  Prob > F = 0.0000

Endogenous effects (within) regression  
Number of obs = 141  
Number of groups = 52

R-sq:  within = 0.0073  
between = 0.0130  
overall = 0.0071  
F(3, 51) = 0.73  
corr(u_i, Xb) = -0.1984  
Prob > F = 0.5374

(Std. Err. adjusted for 52 clusters in company2)
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<tr>
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<td>Std. Err.</td>
<td>t</td>
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<td>0.6614519</td>
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<tr>
<td>sigma_u</td>
<td>1.1025346</td>
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<tr>
<td>sigma_e</td>
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<td></td>
</tr>
<tr>
<td>rho</td>
<td>0.79378978</td>
<td>(fraction of variance due to u_i)</td>
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</table>
(9) Model

. correlate tobsq ids executedirectors nonexecutedirectors ceodualitydummy

(obs=141)

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<th>tobsq</th>
<th>ids</th>
<th>executeds</th>
<th>nonexecuteds</th>
<th>ceodualityy</th>
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<td>tobsq</td>
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<td>ids</td>
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<td>executeds</td>
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<td></td>
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<td>nonexecuteds</td>
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<td>0.0338</td>
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<tr>
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<td>-0.1348</td>
<td>-0.0274</td>
<td>-0.0712</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

. xtreg tobsq ceodualitydummy ids executedirectors nonexecutedirectors
firmleverage, fe

Fixed-effects (within) regression

Number of obs = 141
Group variable: company2
Number of groups = 52

R-sq: within = 0.0182
     between = 0.0121
     overall = 0.0077

Obs per group: min = 1
avg = 2.7
max = 3

F(5, 84) = 0.31
corr(u_i, Xb) = -0.2537
Prob > F = 0.9053
### Tobin's Q Regression

| Variable       | Coef.      | Std. Err. | t     | P>|t| | [95% Conf. Interval] |
|----------------|------------|-----------|-------|------|---------------------|
| ceoduality~y   | 0.1162588  | 0.2543467 | 0.46  | 0.649| -0.3895375 - 0.622055|
| ids            | -0.1345574 | 0.1426763 | -0.94 | 0.348| -0.4182848 - 0.1491701|
| executived~s   | -0.0205967 | 0.1319611 | -0.16 | 0.876| -0.2830158 - 0.2418224|
| nonexecutives  | -0.0335665 | 0.1038089 | -0.32 | 0.747| -0.2399918 - 0.1728788|
| firmleverage   | 0.6440582  | 0.8326157 | 0.77  | 0.441| -1.011689 - 2.299806  |
| _cons          | 1.838487   | 0.8879766 | 2.07  | 0.041| 0.0726484 - 3.604326  |

### Variance Components

- \(\sigma_u\) = 1.1148329
- \(\sigma_e\) = 0.56217351
- \(\rho\) = 0.79726679 (fraction of variance due to u_i)

### Additional Models

- F test that all u_i=0: \(F(51, 84) = 9.25\) \(\text{Prob > F} = 0.0000\)

### xtreg Model

```
.xtreg  tobinsq  ceodualitydummy ids executivedirectors nonexecutivedirectors firmleverage, fe vce (cluster company2)
```

Fixed-effects (within) regression

- Number of obs = 141
- Number of groups = 52

- R-sq: within = 0.0182
- Obs per group: min = 1
- between = 0.0121
- avg = 2.7
- overall = 0.0077
- max = 3

- \(F(5,51) = 0.87\)
- \(\text{corr(u_i, Xb)} = -0.2537\)
- \(\text{Prob > F} = 0.5110\)

(Std. Err. adjusted for 52 clusters in company2)
| Variable      | Coefficient | Std. Error | z     | P>|t|  | Std. Error  |
|---------------|-------------|------------|-------|-----|------------|
| ceoduality-y  | .1162588    | .3172164   | 0.37  | 0.716| -.5205798  |
|               | .7530973    |            |       |     |            |
| ids           | -.1345574   | .0784501   | -1.72 | 0.092| -.2920526  |
|               | .0229379    |            |       |     |            |
| executed-s    | -.0205967   | .0648565   | -0.32 | 0.752| -.1508015  |
|               | .1096082    |            |       |     |            |
| nonexecuti-s  | -.0335565   | .0486882   | -0.69 | 0.494| -.1313022  |
|               | .0641892    |            |       |     |            |
| firmleverage  | .6440582    | 1.126538   | 0.57  | 0.570| -1.617561  |
|               | 2.905677    |            |       |     |            |
| _cons         | 1.838487    | .6558474   | 2.80  | 0.007| .5218187   |
|               | 3.155156    |            |       |     |            |

sigma_u        | 1.1148329    |

sigma_e        | .56217351    |

rho            | .79726679    (fraction of variance due to u_i)
### (10) Model

<table>
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<tr>
<th></th>
<th>tobinsq</th>
<th>auditcommy</th>
<th>big4dummy</th>
<th>ids</th>
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<tbody>
<tr>
<td>tobinsq</td>
<td>1.0000</td>
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</table>

```
. xtreg tobinsq auditcomme dummy big4dummy ids firmleverage lntotalasset capitalintensity YearAcceptCode, fe
```

Fixed-effects (within) regression

<table>
<thead>
<tr>
<th></th>
<th>Number of obs</th>
<th>Number of groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>125</td>
<td>48</td>
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</tbody>
</table>

R-sq: within = 0.1470

<table>
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<tr>
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<th>Obs per group: min = 1</th>
<th>avg = 2.6</th>
<th>max = 3</th>
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<tbody>
<tr>
<td>between</td>
<td>F(7, 70) = 1.72</td>
<td>Prob &gt; F</td>
<td>0.1175</td>
</tr>
<tr>
<td>overall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>corr(u_i, Xb)</td>
<td>= -0.7580</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coef.</td>
<td>Std. Err.</td>
<td>t</td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------</td>
<td>-----------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>tobinsq</strong></td>
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<td><strong>auditcomme-y</strong></td>
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<td>-0.17</td>
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<td><strong>ids</strong></td>
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<td>0.9477</td>
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<td><strong>YearAccept-e</strong></td>
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<tr>
<td><strong>_cons</strong></td>
<td>16.0521</td>
<td>4.9331</td>
<td>3.25</td>
</tr>
</tbody>
</table>

|                          |          |           |         |       |                      |
| **sigma_u**              | 1.4220   |           |         |       |                      |
| **sigma_e**              | 0.5580   |           |         |       |                      |
| **rho**                  | 0.8666   |           |         |       |                      |

F test that all u_i=0:  F(47, 70) = 5.11  Prob > F = 0.0000
. xtreg tobinsq auditcommettedummy big4dummy ids firmleverage lntotalasset capitalintensity YearAcceptCode, fe vce (cluster company2)

note: robust covariance is not full rank; F test numerator degrees of freedom is 6 instead of 7

Fixed-effects (within) regression

Group variable: company2

Number of obs = 125
Number of groups = 48

R-sq: within = 0.1470
between = 0.0393
overall = 0.0227

Obs per group: min = 1
avg = 2.6
max = 3

F(6,47) = 13.04
Prob > F = 0.0000

corr(u_i, Xb) = -0.7580

(Std. Err. adjusted for 48 clusters in company2)
<table>
<thead>
<tr>
<th></th>
<th>Robust</th>
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<tr>
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<td>t     P&gt;</td>
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<td>big4dummy</td>
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</tr>
<tr>
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<td>-.1314131 .0587344 -2.24 0.030 -.2495715 -.0132547</td>
</tr>
<tr>
<td>firmleverage</td>
<td>.947701 1.565615 0.61 0.548 -2.20191 4.097312</td>
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<tr>
<td>lntotalasset</td>
<td>-1.203235 .3801551 -3.17 0.003 -1.968008 -.4384616</td>
</tr>
<tr>
<td>capitalint-y</td>
<td>-.0610774 .0374015 -1.63 0.109 -.1363195 .0141647</td>
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<tr>
<td>YearAccept-e</td>
<td>.051766 .0872311 0.59 0.556 -.1237204 .2272524</td>
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<tr>
<td>_cons</td>
<td>16.0521 4.068808 3.95 0.000 7.866711 24.23748</td>
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<table>
<thead>
<tr>
<th></th>
<th>sigma_u 1.4220345</th>
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</thead>
<tbody>
<tr>
<td>sigma_e</td>
<td>.55800191</td>
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<tr>
<td>rho</td>
<td>.86656966 (fraction of variance due to u_i)</td>
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</tbody>
</table>