CORPORATE GOVERNANCE AND MARKET VALUATION: THE ROLE OF THE INTERNAL CONTROL SYSTEM

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Abstract

We investigate the relationship between the internal control system at the company level (one of the crucial elements of corporate governance - CG) and the market valuation of the company (MV/BV). We use of a unique dataset that identifies companies' governance behavior form the level of information conveyed to market participants through public Corporate Governance reports. Our data include 12,240 firm observations from 136 Italian listed companies for the years 2012 and 2015. Instead of considering a single CG attribute, we quantify CG by looking at various internal control system related issues. We build one Corporate Governance index based on a set of 45 individual governance attributes that correspond to as many aspects of the self-regulatory code of listed companies. Our index is additive with equal weights assigned to each governance attribute and is a good proxy on the quality and eligibility of the internal control system, as defined in the self-regulatory code. Our results show a positive and significant association between the internal control system at company level and the company's assessment according to the market. Overall, non-financial information (such as the CG report issued by listed companies) is taken into consideration by investors as a further factor to appreciate the level of adequacy of their investment choice.

Keywords: Corporate Governance, Corporate Control, Firm valuations, Governance Principles, Corporate Regulation, Internal Control System,

J.E.L. Classification: G30, G34, G38, M42.

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1. Introduction

In recent years, a significant portion of management literature has been paying particular attention to CG issue. Corporate governance in the Italian context can be defined as a whole as the mechanism that ensure minority shareholders receive an appropriate return on their investment (Shleifer and Vishny, 1997). Given the previously unpredictable quickness of business environment changes and since several highly impacting financial scandals had been occurring in early 2000s (for example, Enron, WorldCom and, for the Italian context, Parmalat and Cirio), there has been a growing interest, from an academic and non-academic point of view, to this topic and the process of analysis and evaluation of such events has acquired, over time, ever greater importance. The high relevance of the CG aspects is also highlighted by several authors (see among others: Gombers *et al.,* 2003; Beiner *et al.,* 2006; Bhagat and Bolton, 2008; Bebchuk *et al.,* 2009). They argue that one of the main elements that could favor (so that, controlled) a fair and honest management is good CG, as "the system with which the companies are direct and controlled "(Cadbury Code, 1992). CG, consequently, guide the company towards a path of success. The first scientific researchers who dealt with a possible connection between a "good" governance and (i) variables related profitability, such as ROA and ROE, or (ii) relative market variables, such as Tobin Q or market to book ratio, have used individual governance mechanisms.

The proxies of governance were commonly identified with the Board dimension (Hermalin and Weisbach, 1991; Bhagat and Black, 2002) or the composition (Yermack D., 1996; Eisenberg *et al.,* 1998). Over time, however, and since CG has been observed from different points of view and disaggregated into different components, with different characteristics and sources, some authors (Gompers et al, 2003; Bauer et al, 2004 Drobetz *et al.,* 2004; Klapper and Love, 2004; Core et al, 2006; Brown and Caylor, 2006) have begun to use an analysis based on Corporate Governance Index (CGI). The use of aggregated indices allows to capture the contribution of specific elements to the firm performance or market value, otherwise excluded.

Although these works have examined various Corporate Governance measures (both individual mechanisms and holistic indices), the results are often contradictory. In the literature there is no clear relationship between better governance and higher company valuations from the market or that business

performance is improved by better governance practices. These mixed results could be partially attributable to the difficulty of identifying reliable and valid measures to represent "CG" (Larcker et al., 2007) and to the fact that, as evidenced by Balasubramanian et al. (2010), not all elements of corporate governance are critical for the assessment of the effects on the value of the company (or market value). This turns out to be an element of considerable importance as several authors have argued that it is preferable to select a limited number of governance mechanisms for index construction (Klein et al., 2005; Brown and Caylor, 2006; Bebchuk et al, 2009).

This research is in the flow of studies that investigate the relationship between CG and market valuations using additive and weighted CG indices. The made to undertake a study that incorporates different aspects of CG instead of using individual governance mechanisms (board size, board composition, etc) is choice by the evidence that a single element of government does not capture the direct effect that set of government mechanisms generate. Our index identifies better governed companies by analyzing compliance to governance provisions of the self-regulation code of listed companies. As highlighted in the European Commission Recommendation of 9 April 2014 on the quality of CG reporting: "*The Codes provide standards and best practice for companies, enabling them to perform better and therefore contribute to fostering growth, stability and long-term investment".* In detail, we do not take all the attributes of the self-regulation code but only those that concern a particular aspect of CG, the internal control system[1]. Overall, we use 45 governance attributes extrapolated from 4 of the 10 articles of the self-regulatory code of Italian listed companies, as illustrated in Appendix 1[2]. Finally, through the help of self-created CG additive index, we provide a new point of view on the unexplored Italian market. The use of additive indices is common in the literature. In particular, the approaches used for our additive index have been used by several authors (Brown and Caylor, 2006, Aggarwal et al. (2009), Chhaochharia and Laeven (2009) and Ammann et al. (2011)). Our index (ICS-I) identifies the governance attributes implemented at least with a sufficient level. For each attribute, CGI-1 evaluates whether a firm satisfies a threshold level of

[1]The internal control and risk management system, as defined by article 7th of the Corporate Governance Code for Italian listed companies, "consisting of policies, procedures and organizational structures aimed at identifying, measuring, managing and monitoring the main risks".

[2] In detail, the articles from which the 45 attributes were extrapolated are: Art. 1 "Role of the Board of Directors", Art. 4 "Internal committees of the Board of Directors", Art. 6 "Remuneration of directors" and Art. 7 "Internal control and risk management system".

implementation of the attribute and considers that the firm to have that attribute if it meets the threshold. We assign a value of one to each governance attribute that a company has in place (at least at the threshold level) and zero otherwise. The threshold level is identified in the score 3 which represents a sufficient level of disclosure (namely implement exactly what the Corporate Governance code recommends). All attributes are addressed using the same code declarations, with little detailed information. Therefore, we define the governance index as a percentage of the attributes that are not missing and that a particular company has adopted (i.e., attributes that have been assigned a value of one). This reasoning is based on the evidence that the CG statement should provide information on the Corporate Governance structure of the company. Companies, which have carefully thought about the application of the "Italian corporate governance Code" to their specific circumstances, are more likely to apply the code better and to provide thus better information of their choice, which is reflected in their index.

This study contributes to the literature on broad CG indices from two different points of view. First, we analyze the Italian market that has never been explored, except in cross-country studies[3]. The analysis of CG in the Italian context has important regulatory implications, because Italy was one of the first European countries to publish a self-regulatory code for listed companies[4]. In fact, in many OECD and non-OECD countries, as well as in Italy, there are no binding laws concerning the CG[5]. In these countries, companies are not obliged to be compliant but must communicate whether they have complied with the (national) CG code according to a "comply or explain" approach[6]. Analysis of "comply or explain" system enables us to clearly infer corporate behavior and consequently its effect on markets. Most studies investigating the relation between CG and operating performance or market value, focus on the countries where local codes are

[3] Some cross country studies that have also examined Italy are: Bauer et. to 2004; Aggarwal et al. 2009; Renders *et al.,* 2009; Bauwhede, 2009; Martynova and Renneboog, 2010, Ammann et al 2011.
[4] The first self-regulatory code was written in the United Kingdom in 1992 (Cadbury Report), followed in 1995 by the Greenbury Report, then by the Hampel Report (1998). In Italy the first code of self-discipline dates back to 1999 and is known as the Preda Code, from the name of the chairman of the commission that prepared it. The Italian code has been updated many times, the latest version was approved in July 2018.
[5] A large number of OECD and non-OECD countries have adopted corporate governance codes that do not propose a one-size-fits-all approach. Examples of adoption of the "comply or explain" mechanism to corporate governance can be found in many countries, among others, in Australia, Belgium, Great Britain, Indonesia, Ireland, Italy, Malaysia, New Zealand, Portugal, Spain and Sweden.
[6] The "comply or explain" principle set out in Article 20 of Directive 2013/34/EU is a key feature of corporate governance. This approach requires companies to disclose whether (and to what extent) they comply with a particular corporate governance code and, if they deviate, to explain why they do not respect it. For more information on the "comply or explain" approach, refer to the European Commission Recommendation 2014/208/EU

mandatory or on emerging markets but an increasing number of countries are adopting or are in the process of implementing codes of best practice based on the UK model[7].

Secondly, we extrapolate our data from public documents published by companies. In particular, we check whether the companies in our sample comply with certain attributes of the self-regulatory code of listed companies, in particular those concerning the internal control system. This turns out to be an element of considerable importance as several authors have argued that it is preferable to select a limited number of governance mechanisms for index construction (Klein *et al.,* 2005; Brown and Caylor, 2006; Bebchuk et al, 2009). This is also supported by Balasubramanian et al. (2010) which highlight how often all the elements in CG are not critical ones.

The governance data used identify the CG behavior and the level of internal control system information conveyed to market participants through the CG reports. Our data is more specific than many datasets used to build previous CG Indices but is much richer than the research that focus on one or a few attributes. they cover 45 different governance attributes that following CoSO Report we classify in eight categories, namely: Internal environment, objectives setting, event identification, risk assessment, risk response, control activities, information and communication, monitoring.

Our results indicate that CG is taken into account in the investment choices. However, not all elements of measured governance are equally important, and the effects do differ by governance aspects observed. This result is somewhat different from the recent research evidence that investigated the countries in which the "comply or explain" principle applies.

The remainder of the paper is organized as follows. In the following section the research setting and review of the CGI literature will be examined. Hence, in section 3 the research objectives and the self-created data set are identified with a description of each CG variable that is used in the study. Section 4 explains the construction of our governance indices used in this study. We report in section 5 our

[7] The World Bank Report on the Observance of Standards and Codes (ROCs) recommends to many countries the implementation of a code of corporate governance with mandatory reporting on a "comply or explain" basis. Moreover, the United nations assert that these system is to be encouraged.

analysis, the main results and robustness tests. Finally, Section 6 contains conclusions and discussions.

2. Research setting and Literature review

2.1 Theoretical framework

Corporate Governance is commonly referred to several theories that explains the rise and evolution of the topic. From agency theory to information asymmetry to managerial theory, several attempts have been made to explain the convenience of strengthening the CG mechanisms, consequently for the most common task every company must achieve.

From a purely theoretical perspective, agency problems impact on the firm value through the amount of expected cash flows and / or the cost of capital. Quality CG could be associated with debt financing, due to agency problems it could make investors pessimistic about the future cash flow prediction (in). La Porta et al. (1998) conclude that dividend policy constitutes an essential tool to reduce agency conflicts to investors (especially to minority investors). These assertions are consistent with the theoretical model presented in La Porta, López-de-Silanes, Shleifer and Vishny, (2000; 2002). Their agency model of dividend payout in the CG framework demonstrates the positive effects of good CG practices on firm valuation are explained by higher investor confidence. This situation lowers the cost of capital and, ultimately, increases firm value. Thus, better governance increases investor protection and makes it easier for companies to access external funding. Good CG should therefore limit the agency problems and prevent the insiders' misbehavior, thus ensuring superior corporate performance. Good governance produces better operational performance through better allocation of resources and better management, creating wealth more generally (World Bank, 2005)[8].

From a different point of view, CG provides "the ways in which the lenders of the companies themselves ensure to obtain a return on their investment" Shleifer and Vishny (1997), closing the information asymmetry gap of supplier / investor funds. The concept of asymmetric information was introduced in George A. Akerlof's (1970) that used the the market for used cars as an example of asymmetric

[8] The World Bank Toolkit Developing Corporate Governance Codes of Best Practice (2005).

information notion. Many authors have used the concept of information asymmetry in their research and different definitions have been created. For our part, Klein et al. (2005) reveal that, “in corporate finance, asymmetric information refers to the notion that managers have better information than do market participants on the value of their firm’s assets and investment opportunities”. Therefore, CG is a tool to supervise managers' behavior and reduce information asymmetry (Chen *et al.,* 2009).

Some important research instead follows managerial theory. Their results highlight the compensation between the CG level and myopia management with reference to long-term investments (Stein, 1988). In this perspective, "good" CG would increase long-term investments, strengthening the firm value. A huge literature since Baumol (1959), Marris (1964) and Williamson (1964) argues of manager motivation towards ineffective investments, selected to extract private benefits, especially when top managers are entrenching (Jensen and Ruback, 1983). Also from this point of view, a better CG reduces the short-sighted management of the managers and, consequently, the longer the term of the investments will be. Factors that increase the ability of shareholders to monitor managers or to align incentives are therefore expected to improved firm performance. Hence, as stated by Klein et al. (2005), where ownership is dispersed, one expects a positive relationship between measures of CG and firm performance, other things equal.

In this research two explicit research frameworks could be embraced. Both the setting on the problems of agency that the setting on the presence of information asymmetries (this, of course, are quite similar, as regards some important aspects, even if not the same) correspond to the elements of our analysis. As Bauer et al. (2004) argue, a low quality of CG leads to lower market returns. In addition, even minorities, which suffer from strong information asymmetries, need a strong center of gravity to ensure their investment would have been somehow protected and that private benefits are not easily extractable. Thus, an inefficient CG generates high agency costs, so that decreasing returns (Khanchel I., 2007).

We don't use managerial theory because in Italy, like most countries (La Porta *et al.,* 1999), dispersed ownership is not the dominant ownership form. Italy is a typical shareholding country concentrated in the hands of families[9], or by

[9] Consob's 2017 report on the corporate governance of Italian listed companies shows that "the 230 companies listed on the MTA at the end of 2016 confirm the clear prevalence of issuers (about 7 out of 10) in whose shareholders there is a reference shareholder (majority absolute or relative capital). (...) Families

companies often controlled by families, and the problems deriving from widespread shareholding structure are hardly felt. For this reason, the paper analyzes what the elements associated with the CGI are, besides producing themselves, a higher ratio MV/BV. The high link between these elements is of course due to the level of losing information of the investors "smell" around the exercise (positive or negative), such as the level of CSR, the attention to the environment or expectations, the set of non-financial information as the elements of CG are. The higher the level of positive (negative) information investors think they are missing, the more positive (negative) the relationship between market value and book one could be.

2.2 Literature review

With regard to the relative CG factors that affect the firm value (under a view of market value or profitability), the CG literature has grown in importance in recent years, both on the basis of the quantity of articles on this topic and under a methodological perspective. Regarding the growing attention to the issue, the empirical literature has analyzed the impact of some CG elements on the firm value both at cross country level (La Porta *et al.,* 2002; Bauer *et al.,* 2004; Klapper and Love, 2004; Durnev and Kim, 2005; Doidge *et al.,* 2007) and at the single country level (Drobetz *et al.,* 2004 in Germany; Gombers *et al.,* 2003 in the United States; Black B., 2001 in Russia, Black *et al.,* 2006 in Korea, Beiner *et al.,* 2006 in Switzerland). From a methodological perspective, the empirical literature that studies the association between CG and firm value has gone from research focused on very specific measures that typically reflect only a single CG items or a few objects (Yermack D., 1996; Eisenberg *et al.,* 1998; Hermalin and Weisbach, 1991; Bhagat and Black, 2002) to the researchs in which a holistic approach. This approach is used to appreciate the CG contribution to the performance/firm value and to provide a more complete and comparable measure of CG quality (Gompers *et al.,* 2003; Bebchuk *et al.,* 2009; Core *et al.,* 2006; Brown and Caylor, 2006).

The literature also discusses the methods of constructing complete and comparable measures of the CG quality. Specifically, in providing these indices two different approaches were followed.

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continue to control most companies (146 companies, mainly belonging to the industrial sector, for a market capitalization of 33%), followed by the State and local authorities (21 companies, operating mainly in the services sector, for a capitalization equal to 36% of the market), while in 18% of cases, mainly relating to the financial sector, a controlling company can not be identified ".

In the first approach, the researches obtain (or use) the rating agencies scores. Given the strong interest in the topic, many organizations and agencies have addressed the elements related to the CG as a source of useful information to fine-tune their opportunities and investment choices[10]. This professional information was used in some academic documents, such as Klapper and Love (2004) with information on Credit Lyonnais Securities Asia (classified in seven different categories) or Durnev and Kim (2005) and Patel et al. (2002) with S&P index (created by Standard and Poor's Corporation). Aggarwal et al. (2009) build their CG index using the ISS database (Institutional Shareholder Services), Bauer et al. (2004) employ feedback Deminor and so on many contributions are in this streamline[11].

In the second approach, with increasing importance in recent years, researchers have created their CG index using surveys and interviews aimed at the top managers of the companies (Black *et al.,* 2006; Cheung, Yan-Leung, *et al.,* 2007; Balasubramanian *et al.,* 2010) or using the public information disclosed by company in their annual CG reports (Drobetz *et al.,* 2004; Beiner *et al.,* 2006; Leal and Carvalhal-da-Silva, 2007; Garay, Urbi, and González, 2008; Price *et al.,* 2011).

2.2.1 The literature on Corporate Governance Index and firm performance

A snapshot of all the previous attempts reveals conflicting results. Gombers et al. (2003) and Brown and Caylor (2006) looking at US companies, Toudas and Karathanassis (2007) for Greek companies, Drobetz et al. (2004) for the German ones, Shabbir and Padgett (2008) for those of the United Kingdom, and Beiner et al. (2006) for the Swiss, discover the association between the performance (or the variables related to the market) and "good" CG. Otherwise, several authors discover a different situation (Lehn et al 2007, Aman and Nguyen, 2008; Price *et al.,* 2011; Connelly *et al.,* 2012), with no emerging association. These conflicting results are confirmed and further supported by the works that don't find univocal results (Bauer et al 2004, Klein *et al.,* 2005; Bhagat and Bolton, 2008;) The situation does

[10] The corporate governance rating firms (such as Standard and Poor's) play an important role in public markets. They rank the quality of firm corporate governance, advise shareholders how to vote and sometimes press for governance changes (Daines and Larcker, 2010).
[11] The rating agency scores most used in literature are: CGQ rating of Deminor, CLSA rating of Credit Lyonnais Securities Asia, GMI rating from Governance Metrics International, Risk Metrics (former Institutional Shareholder Services (ISS)) and Standard and Poor's rating (S & P index).

not seem to be clear even when analyzing the researches that have explored CG under a cross-country aspect. Durnev and Kim (2005) find that companies with "good" CG are better assessed in equity markets, and these relationships are stronger in “less investor-friendly” countries. So in the weaker legal frameworks, if there are also good investment opportunities, companies adapt to poor legal environment by establishing efficient governance.

Therefore, as also stated by Renders et al. (2010), firm-level CG and country-level investor protection appear to be replacing each other in reducing the cost of equity. The results of Aggarwal et al. (2009) are different. Their point out that US firms have a better governance of foreign companies and therefore that investments in governance are greater in the economically and financially more developed countries, which better protect investors' rights. This result would therefore demonstrate that investor protection and CG are complementary and not substitutes. The complementary nature of legal systems and CG has also been previously confirmed by Klapper and Love (2004) who find that companies in countries with weak legal systems have lower governance rankings. These authors find a positive correlation between governance and market valuation. This relationship, in line with the results of Renders et al. (2010), is stronger in countries with weaker legal systems.

The literature has extended discussion on the reasons for which non-univocal results are present. Presumably this is partly due to the non-trivial nature of the question. At some level, it is difficult to dispute that there is an association, but it is not easy to understand what levels of governance to implement to increase performance and/or market value. For example, there is probably some association to acceptance of the idea that resource providers should be protected, but much less we know on what the impact of these protections should be. An additional open question concerns if the resource providers should be primarily shareholders or also include other stakeholders (Shleifer & Vishny, 1997; Tirole, 2001). Similarly, there is probably near-complete approval to the idea that risk management is necessary for "good" CG, but much less sharing on what the impact of risk management should be. Furthermore, these conflicting results could be partially attributable to the difficulty of identifying reliable and valid measures to represent Corporate Governance (Larcker *et al.,* 2007) and to the fact that the methodologies for the construction of CG indices may suffer from some limitations (see among others: Klein *et al.,* 2005; Bebchuk *et al.,* 2009; Bhagat and Bolton, 2008).

For example, commercial indices using data from rating agencies can only examine the effects of external governance despite the fact that effective CG requires both internal and external measures (Cremers and Nair, 2005). Often these commercial indices use weighting scales that can be significantly affected by the subjective opinions of analysts and on their knowledge about companies (Zheka, 2006). In addition, CG measures of rating companies often do not accurately predict the results of CG (Daines *et al.,* 2010) and could lead to distorted results. Otherwise, Self-creating a CG index is a rather complex path, and more literature discusses some methodological limitations on how to build the index and on the systems with which to weight the individual attributes.

Richard and Yves Bozec (2012) argue that indices based on survey might have two main limitations. First, companies not responding might be those with poor governance system (self-selection bias). Second, in responding to the survey questions, companies could overestimate their CG quality (self-report bias). Moreover, if we look at the self-created indexes in a more general aspect, including also the indices created using the public relations issued by the companies, we can highlight different limitations. As also highlighted for the commercial indices (see among other: Zheka, 2006), the weighting scale of the self-created indices could be subjectively influenced (Bhagat and Bolton, 2009; Khanchel I., 2007). Balasubramanian et al. (2010) highlight that not all CG elements are critical ones and they assert that a holistic approach, where a limited number of pieces are chosen, is more desirable. This statement were claimed elsewhere recently (Bebchuk et al, 2009; Brown and Caylor, 2006; Klein *et al.,* 2005). Particular attention in this work was given to the most important limitations mentioned above, and we have chosen a nationwide survey because we agree with Klapper and Love (2004) and Durnev and Kim (2005) supporting the importance of the uniform context and the same regulatory environment in the construction of an effective Corporate Governance Index[12] (see also: Doidge *et al.,* 2007 and Balasubramanian *et al.,* 2010).

Our work analyzes the impact of "good" CG - with a specific focus on the Internal Control System elements - on market value from a single country approach. In the previous literature the Italian market has not been explored. The

[12] Governance depends on both country-level as well as firm-level mechanisms. The country-level governance mechanisms include a country's laws, its culture and norms, and the institutions that enforce the laws. Firm-level or internal governance mechanisms are those that operate within the company and are voluntary implemented (Aggarwal *et al.,* 2009 and Chhaochharia and Laeven, 2009).

paper is therefore in the flow of studies seeking to self-create a CG index and to study the impact on the relationship between market value and book value (MV / BV). As deeply discussed further in the paper, this ratio is a good factor to appreciate the level of utility for non-financial information investors, as the greater the goodness of these hidden insights, the higher the market value (Durnev and Kim, 2005; Renders *et al.,* 2010). Shleifer & Vishny, (1997) explain that higher CG ratings should translate into improved operating performance and a higher market value, as better monitoring forces insiders to invest in projects with a positive net present value and to reduce waste, so that more of the benefits flow back to outside investors. Our index is based on the level of compliance with declarations of the CG Code for Italian listed companies specifically dedicated to serving the needs of internal control.

"Internal control system" refers to the definition that provides the same Italian code, in which it establishes that this system is "made up of policies, procedures and organizational structures aimed at identifying, measuring, managing and monitoring the main risks". Furthermore, the code states that "it is an integral part of the organizational and CG framework adopted by the issuer and takes into account the reference model and best practices applied at both national and international level". To be assessed as an "effective internal control and risk management system" must contribute "to the management of the company in a manner consistent with the objectives defined by the Board of Directors, promoting a well-informed decision-making process" and "to guarantee the safeguard of the company assets, the efficiency and effectiveness of management procedures, the reliability of the information provided to the corporate bodies and the market and compliance with the laws and regulations, including the statutes and internal procedures". The reference of the definition provided by the Italian code to the CoSO Framework (CoSO 2013) is quite significant. The CoSO framework is in fact the underlying inspiration of the statements that refer to ICS all over the world, until today.

3. Objective and data set

3.1. Aim

To overcome the issues raised above, we approach the problem from a different perspective. The main objective of this research is the identification of a synthetic CG index to investigate on possible corporate government (internal control system) contribution to the market value, in the underexplored Italian market. Most studies investigating the relation between CG and operating performance or market value focus on countries where local codes are, de facto, mandatory. For example, in the US the CG code is essentially mandatory, as exemplified by the Sarbanes-Oxley Act.

However, in many countries (such as the United Kingdom and Italy) attention is focused on CG principles approach. This approach has been introduced for the first time in 1992 by the Cadbury Report. The Cadbury report consists of a voluntary Code of best practice, which contains principles and provisions relating to different aspects of governance and control in a company. It is characterized by the voluntary compliance with the Code provisions and by disclosure of mandatory information. In particular, it is mandatory for companies to state in their annual reports whether they comply with the Code and to identify and give reasons for any areas of non-compliance in light of their own particular circumstances. As neither the form or content of this part of the statement are prescribed, companies have a free hand to explain their governance policies in the light of the principles. It is for shareholders to evaluate this part of the company's statement.

Our corporate governance index (ICS-I) are a relative measure of firm disclosure in internal control system (as a particular aspect of CG), and therefore represent the company's investment to create efficient and effective control systems. Following prior CG research, we hypothesize that greater compliance with CG code and, more specifically, best practices concerning the structure and functioning of the internal control system, is associated with better market value. Using the MV/BV ratio, we therefore test whether the market takes into account the governance and control choices made by companies in their investment decisions. The choice of the market to book value (MV/BV ratio) depends on the fact that in theory, this particular relationship is the consequence of two main flows of sources: the first concerns the fundamentals of each investment choice, the firm value, such as sales, returns, financial structure. The second regards flows of sources related company elements of government, in particular those concerning the Internal Control System, as the strongest are, the most reliable are the information of annual reports and any other data flowing from the firm to the

outside. Several authors (see among others: Durnev and Kim, 2005 and Renders *et al.,* 2010) highlight the existence of a relationship between non-financial information (such as Corporate Social Responsibility reports, CG reports and others) and the market performance. This highlights the fact that investors also take into account non-financial aspects in the assessment of the usefulness levels of their investments.

Furthermore, this study addresses through some limitations that the literature has already argued above. We follow the authors whose results are for the construction of a synthetic CG index (Bebchuk et al, 2009; Brown and Caylor, 2006; Klein *et al.,* 2005; Balasubramanian *et al.,* 2010). For our index we select some assertions of the Italian CG code for listed companies that deal only with the internal control and risk management system, as we have studied this specific portion of CG.

In the following section, we explain in detail the governance data contained in our database and how to condense the large number of attributes into one measure of CG. Finally, we shown the financial data we use to construct the control variables used for the tests in the empirical section.

3.2. Sample and Corporate Governance data

We use the provisions of the Italian self-regulatory code of listed companies to identify the attributes of governance, pertinent to internal control system, to be used in our analysis. As previously stated, the self-regulatory code is based on the comply or explain principle. That means the principles contained therein may not be fully respected by companies. If the company considers inappropriate a certain rule (or part of it) can choose another solution than that found in the Code. The company must, however, clearly state that it has not complied with the rule, along with an explanation of the reasons for this. Companies must also give a report on CG where the governance structure and the principles of the self-regulatory code adopted are presented, including any alternative solutions and the reasons for them. Therefore, the CG report is primarily statement should provide essential information on the CG arrangements of the company, such as information relating to the relevant CG attributes applied to it, the internal control and risk management systems, the shareholders' meeting and its powers, the rights of

shareholders, the administrative, management and control bodies and the related committees[13].

The paper investigates the Italian listed market ("Borsa Italiana"). We have extracted all listed companies at the end of 2015, and are also listed at the end of 2012. Excluding companies belonging to the financial sectors (banks, insurance companies, financial services companies, real estate companies) and excluding SMEs belonging to the AIM segment. Financial companies are excluded from the analysis, since the regulatory environment for financial companies differs significantly from non-financial ones. This choice is in line with previous research which highlights how the specific regulations for financial companies may interact with its provisions and have implications for CG (Levine, 2004). Furthermore, in order to be included in the set, each company must have provided the CG annual report. We therefore excluded companies that had not published the CG report (or maybe we could not find the reports) for one of two years or for both years. In the end, the set of companies is made up of 136 companies belonging to 10 different industrial sectors, so that 272 are the total analyzed ratio, since the elements extracted are 45, the total of the analyzed elements are 12.240. Appendix 2 provides a breakdown of the percentages of presence in the various sectors.

For the construction of our governance indices we use 45 individual governance attributes extracted from the self-regulatory code of Italian listed companies[14]. When referring to the specific element of the ERM framework (CoSO, 2004), they can be grouped into 8 groups, specifically dedicated to serving the ICS elements. These eight groups derive from the way management runs an enterprise and are integrated with the management process. In particular, Appendix 3 provides a description of each element and a snapshot of the number of items assigned to each.

The data for our analysis comes from CG statements contained in the annual reports of Italian companies. We collected all the affirmations through a content analysis one by one, performed on two different CG annual report: the first one refers to the fiscal year 2012 (first full year after the most relevant modifications of the Code attributes that concern Internal control system), the second refers to the

[13] For more information, see 2014/208/EU: Commission Recommendation of 9 April 2014 on the quality of corporate governance reporting.
[14] Appendix 1 shows all the statements concerning the internal control system used, with evidence of the articles of the Italian code to which they refer.

tax year 2015. The delay of three years is due to the normal period while the Board itself is in charge. Because each board is in charge three years, a selection of a three-year delay guarantee the analysis of the annual CG report released by two different boards. In addition, three years after the strong improvement of the ICS related code affirmations a kind of update could be interesting to explore. Each affirmation was compared to the original CG attributes and coded using a Likert scale evaluation model from 0 (missing) to 5 (fully described). This requires some qualitative judgement on our part and necessarily contains some subjectivity, which we try to minimize in the light of objective and measurable criteria illustrated in Appendix 4.

We then measure the quality of CG on the basis of compliance with the selected 45 provisions of the CG Code. The Code clearly states that the compliance with the provisions must be modulated to the particular exclusive circumstances of the company that could justify their non-complete compliance. We therefore classify the explanations by searching in the CG statement for the presence of verifiable and specific elements relating to the firm.

3.3 Financial data

The dependent variable and other relevant control variables were extracted from the Thomson Reuters Datastream database. We use MV/BV as our main measure of performance. This quotient provides an extremely indicative data, relating the market valuation of a security, with its book value, and revealing if the market overestimates or underestimates the activity in question. This variable allows us to study the influence of CG (specifically on the aspects of the internal control system) on the added value perceived by investors and stock market operators.

Indeed, as the European Commission states: "high-quality disclosure on corporate governance arrangements provides useful information to investors and facilitates their investment decisions. It also gives investors more confidence in the companies they invest in. Increased transparency to the market can also bring, more generally, reputational benefits for companies and more legitimacy in the eyes

of stakeholders and society as a whole"[15]. In multivariate analysis, we use different control variables.

We control, according to previous research work on the relationship between CG and firm value (Yermack, 1996; Beiner *et al.,* 2006; Bebchuk *et al.,* 2008; Bhagat and Bolton, 2008), for the leverage, defined as the ratio of total debt to total assets, as a measure for the financial structure, ROA, defined as the ratio of operating income to total assets, as a measure for profitability and floating, as the level of pure investors (ownership structure) is a relevant element of the MV/BV relationship. Furthermore, it was considered crucial to check for the company size using the logarithm of the total assets (LnAssets) which, as has emerged several times in the literature, is a determining factor for the choices of CG together with the industrial sector to which it belongs. So, let's check for the sector variable and the year variable.

As for the sector variable, according to the main literature (Bauer et al, 2004; Bebchuk and Hamdani, 2009; Bhagat, Bolton and Romano, 2008; Daines, Gow and Larker, 2010), the measure is a dummy variable for all the 10 sectors of the Italian Stock Exchange divides the market into. As for the year variable, the measure is a dummy variable for 2012 and 2015. Table 1 summarizes all the financial elements and correlated variables used in the model.

Table 1 – Financial Elements

Variable	Obs	Mean	Std. Dev.	Min	Max
MVBV	272	1.518614	1.682217	-1.494657	12.70623
LEV	272	.3147535	.2001948	0	1.298914
ROA	272	.0204807	.1335755	-1.512092	.2804513
Float	272	.4120442	.176277	.0434	1
LnAssets	272	20.32383	1.869798	16.46353	25.86978

[15] The financial time assert that the code requires that a company's explanation in its annual report "should aim to illustrate how its actual practices are both consistent with the principle to which the particular provision relates and contribute to good governance. The principle of comply or explain means that companies are accountable to shareholders for their decisions". A OECD recommendation also states that the disclosure of the company's governance structures and policies is important for the assessment of the company by the shareholders. (OCED Principles of Corporate Governance, 2004).

4. Methodology

4.1 Internal Control System index construction

We use the 45 attributes of governance identified to construct an index concerning the internal control system. As a first step, each of the governing elements of companies in the sample is evaluated, using a Likert scale evaluation model from 0 (missing) to 5 (fully described), according to the compliance to the relevant guidelines (self-regulatory regulation for the Italian companies listed). We therefore measure the quality of CG on the basis of compliance with the 45 selected attributes of the CG Code. Table 2 reports descriptive statistics of the scores assigned to the sample companies for each attribute.

For example, with regard to attribute 12 "one or more directors to be charged with the task of establishing and maintaining an effective internal control and risk management system" we assigned a score of 3 (Sufficient level) to the company which stated: "[...] as envisaged by principle 7.P.3 of the Code, the two General Managers and Management Board Members have recently been identified as directors in charge of the internal control and risk management system, each for the respective areas of competence [...]" while we attributed a score of 4 to the company which states "The Company has an executive director in charge of overseeing the functionality of the internal control system, in particular, the Board of Directors currently in charge has identified the Chairman of the Board of Directors as executive director in charge of overseeing the functionality of the internal control system, in compliance with the provisions of the Corporate Governance Code. In particular the Administration in charge of the control and risk management system is responsible for identifying the main business risks (strategic, operational, financial and compliance), taking into account the characteristics of the activities performed by the Issuer and its subsidiaries, and submits them for consideration by the Board; implements the guidelines defined by the Board, providing for the design, implementation and management of the internal control system, constantly verifying its adequacy and effectiveness." On the other hand, if we analyze the attribute 17 "Each issuer shall provide for coordination between the above mentioned bodies in order to enhance the efficiency of the internal control and risk management system and reduce activities overlapping." we assign a score of 2 to the company that declared: "The Company

has developed an integrated compliance model that analytically identifies the activities of the subjects involved in the Internal Control and Risk Management System, identifying concrete coordination methods" while we assign a score of 5 to the company that states: "the issuer provides for a close coordination between the various subjects involved in the internal control and risk management system through the cross designation of subjects belonging to one body as members of others or through participation in the work of the various subjects belonging to the other bodies involved in the control and risk management system. The information flows and the coordination activities are also constantly monitored by the audit committee". Our approach is based on the assumption that a company can respect the code in different ways. They can compliant with a sufficient level, that is implement exactly what the CG code recommends or can implement greater controls than those required by the code. Indeed, the CG statement should provide information on the CG structure of the company, which can be useful to investors for their investment choices. More information could translate into greater certainty about the internal control system and more investor confidence.

Our additive index (ICS-I) measures the governance attributes adopted by a company. For each attribute, ICS-I evaluates whether a firm satisfies a threshold level of implementation of the attribute and considers that the firm to have that attribute if it meets the threshold. We assign a value of one to each governance attribute that a company has in place (at least at the threshold level) and zero otherwise. The threshold level is identified in the score 3 which represents a sufficient level of disclosure (namely implement exactly what the CG code recommends). All attributes are addressed using the same code declarations, with little detailed information. This index therefore represents the percentage of attributes that are not missing and that a particular company has adopted (i.e., attributes that have been assigned a value of one). If a company satisfies with sufficient level (threshold level) all 45 attributes, ICS-I for this company would be equal to 100. If the company does not provide information on an attribute or does not reach the threshold level, we remove this attribute from the index calculation. This approach is the same to that used by Brown and Caylor (2006), Aggarwal et al. (2009) and Ammann et al. (2011). This approach is based on the assumption that a company that complies the threshold level for each attribute is sufficiently governed. Sufficient disclosure levels allow the market to adequately assess every single aspect of governance, albeit without specific and detailed information.

Table 2 - Descriptive statistics of the scores assigned for each attribute

Variable	Obs	Mean	Std. Dev.	Min	Max
P1	272	2.235294	1.596746	0	5
P2	272	3.106618	1.079682	0	5
P3	272	2.709559	1.766911	0	5
P4	272	3.0625	1.259558	0	5
P5	272	1.819853	1.804231	0	5
P6	272	.7647059	1.389126	0	5
P7	272	2.941176	1.298678	0	5
P8	272	1.132353	1.552566	0	5
P9	272	2.948529	1.216855	0	5
P10	272	2.316176	1.343027	0	5
P11	272	2.091912	1.584871	0	5
P12	272	2.694853	1.273738	0	5
P13	272	2.191176	1.570083	0	5
P14	272	2.639706	1.503613	0	5
P15	272	.6727941	1.333473	0	5
P16	272	1.136029	1.472963	0	5
P17	272	2.485294	1.724515	0	5
P18	272	3.121324	1.095102	0	5
P19	272	2.514706	1.15886	0	5
P20	272	2.393382	1.386423	0	5
P21	272	2.205882	1.37783	0	5
P22	272	1.5625	1.469163	0	4
P23	272	1.091912	1.461312	0	5
P24	272	1.268382	1.454612	0	4
P25	272	2.029412	1.413907	0	5
P26	272	2.341912	.9550839	0	5
P27	272	2.558824	.9233719	0	4
P28	272	2.172794	1.098269	0	5
P29	272	1.919118	1.190709	0	4
P30	272	1.830882	1.25704	0	4
P31	272	2.106618	1.051985	0	4
P32	272	2.761029	1.244126	0	5
P33	272	2.669118	1.066464	0	5
P34	272	2.279412	1.150589	0	5
P35	272	2.077206	1.299132	0	4
P36	272	2.058824	1.443983	0	5
P37	272	1.654412	1.34674	0	4
P38	272	2.25	1.46421	0	5
P39	272	2.386029	1.227704	0	5
P40	272	2.275735	1.248349	0	5
P41	272	2.047794	1.430272	0	5
P42	272	1.209559	1.386619	0	5
P43	272	2.117647	1.320063	0	5
P44	272	1.720588	1.473962	0	5
P45	272	2.198529	1.904819	0	5

4.2 Descriptive analysis of internal control attributes

In this section we make descriptive analysis of our data based on respect for our attributes. Instead of analyzing the disclosure of individual companies, we try to describe which attributes are most taken into consideration by the Italian listed companies examined.

Table 3 gives an overview of the 45 governance attributes and show, for both years examined, the percentage of companies that have obtained a score of at least 3 (threshold value). Therefore, we can interpret these values as the aggregate index of the 45 attributes of the Italian self-regulatory code. An analysis of this kind allows us to assess compliance with the individual attributes of government and,

consequently, to understand which factors are most carefully taken into consideration by the companies of our sample.

Our 45 attributes are sufficiently adopted, on average, by the majority of the sampled companies. For example, in 2012 ten of the 45 selected attributes were implemented with a level sufficient for over 70% of the companies in our sample. For 2015, however, over 80% of our sample reaches a sufficient level on 12 attributes. And again, there are no attributes that, implemented at a sufficient level in 2012, did not reach sufficient levels in 2015. These data show an increase in the levels of compliance achieved. In fact, the attributes that reach a sufficient level in 2015 have increased by 17.63% compared to 2012. This increase, although not of a modest size, supports the thesis that companies do not radically change the governance aspects but implement the controls progressively (Arcot and Bruno, 2007). If we analyze the data in more detail, an interesting point emerges.

The items concerning the duties and the skills of the members of the board of directors regarding the internal control system are the aspects that recorded the lowest increase in compliance in percentage terms. Opposite trends were the aspects concerning the methods of coordination of the various internal functions and the documents review of the Internal Audit function, which recorded an increase of over 40% percentages as an average value from 2012 to 2015. This data confirms the growing importance of second-level control functions and the increasing importance of the Internal Audit function[16]. Finally, we highlight the presence of two attributes satisfied at least at the threshold level by more than 90% of companies for 2015, ie the assignment for the maintenance of an effective ICS to the directors (92%) and the Control and risk committee assessment on the correct use of accounting standards.

Table 3 (part 1) - Overview of the percentage of companies that have obtained a "threshold value" score

[16] For further information on the topic, refer to the internal audit literature.

Num.	Articles	Principles	Contents	% of firms meeting attributes (2012)	% of firms meeting attributes (2015)	Increase
1	Art. 1 – Role of the Board of Directors	1.C.1. Lett. B	The Board of Directors shall: [...] b) define the risk profile, both as to nature and level of risks, in a manner consistent with the issuer's strategic objectives	53,68%	72,79%	19,12%
2	Art. 1 – Role of the Board of Directors	1.C.1. Lett. C	The Board of Directors shall: [...] c) evaluate the adequacy of the organizational, administrative and accounting structure of the issuer as well as of its strategically significant subsidiaries in particular with regard to the internal control system and risk management;	78,68%	84,12%	5,44%
3	Art. 1 – Role of the Board of Directors	1.C.1. Lett. I	The Board of Directors shall: [...] i) provide information in the Corporate Governance Report on (1) its composition, indicating for each member the qualification [...] the relevant role held within the Board of Directors […] the main professional characteristics as well as the duration of his/her office since the first appointment; [...]	46,52%	65,29%	18,77%
4	Art. 4 – Internal committees of the Board of Directors	4.P.1.	The Board of Directors shall establish among its members one or more committees with proposing and consultative functions according to what set out in the articles below.	63,68%	83,82%	20,15%
5	Art. 4 – Internal committees of the Board of Directors	4.C.1. Lett. F/G	Persons who are not members of the committee, including other Board members or persons belonging to issuer's structure, may participate in the meetings of each committee upon invitation of the same, with reference to individual items on the agenda; [...] the issuer shall provide adequate information, in the Corporate Governance Report, on the establishment and composition of committees, the contents of the mandate entrusted to them, as well as, on the basis of the indications provided for by each committee, the activity actually performed during the fiscal year, the number of meetings held, their average duration and the relevant percentage of participation of each member.	33,82%	47,79%	13,97%
6	Art. 4 – Internal committees of the Board of Directors	4.C.2.	The establishment of one or more committees may be avoided and the relevant duties may be assigned to the Board of Directors, under the coordination of the Chairman and provided that: (i) independent directors are at least half of the Board of Directors members; if the number of the Board members is odd, a rounding down to the lower unit shall be carried out; (ii) adequate time is dedicated during the Board meetings to actions that the Code requires the Committees to carry out, and this circumstance is disclosed in the Corporate Governance Report; (iii) as far as the control and risk committee is concerned, the issuer is neither controlled by another listed company nor it is subject to direction and coordination. The Board of Directors describes in detail in the Corporate Governance Report the reasons underlying the choice not to establish one or more committees; in particular, it provides adequate grounds for the choice not to establish the risks and control committee in consideration of the complexity level of the issuer and the sector in which it operates. In addition, the Board shall periodically reassess the choice made.	8,82%	15,00%	6,18%
7	Art. 6 – Remuneration of directors	6.P.3.	The Board of Directors shall establish among its members a remuneration committee, made up of independent directors. Alternatively, the committee 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. At least one committee member shall have an adequate knowledge and experience in finance or remuneration policies, to be assessed by the Board of Directors at the time of his/her appointment.	69,94%	80,88%	10,94%
8	Art. 6 – Remuneration of directors	6.C.3.	Any incentive plan for the person in charge of internal audit and for the person responsible for the preparation of the corporate financial documents shall be consistent with their role.	20,59%	36,76%	16,18%
9	Art. 7 – Internal control and risk management system	7.P.1.	Each issuer shall adopt an internal control and risk management system consisting of policies, procedures and organizational structures aimed at identifying, measuring, managing and monitoring the main risks. Such a system shall be integral to the organizational and corporate governance framework adopted by the issuer and shall take into consideration the reference model and the best practices that are applied both at national and international level.	65,44%	89,71%	24,26%
10	Art. 7 – Internal control and risk management system	7.P.2.	An effective internal control and risk management system contributes to the management of the company in a manner consistent with the objectives defined by the Board of Directors, promoting an informed decision-making process. It contributes to ensuring the safeguarding of corporate assets, the efficiency and effectiveness of management procedures, the reliability of the information provided to the corporate bodies and to the market and the compliance with laws and regulations, including the by-laws and internal procedures.	59,68%	77,94%	18,26%
11	Art. 7 – Internal control and risk management system	7.P.3. Lett. A	a) the Board of Directors, that shall provide strategic guidance and evaluation on the overall adequacy of the system, identifying within the Board:	53,38%	71,32%	17,94%
12	Art. 7 – Internal control and risk management system	7.P.3. Lett. A punto i)	(i) one or more directors to be charged with the task of establishing and maintaining an effective internal control and risk management system, and	77,74%	91,91%	14,18%
13	Art. 7 – Internal control and risk management system	7.P.3. Lett. A punto ii)	(ii) a control and risk committee in line with the requirements set forth by principle 7.P.4., to be charged with the task 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;	56,76%	77,06%	20,29%
14	Art. 7 – Internal control and risk management system	7.P.3. Lett. B	b) the person in charge of internal audit, entrusted with the task to verify the functioning and adequacy of the internal control and risk management system;	71,47%	83,82%	12,35%
15	Art. 7 – Internal control and risk management system	7.P.3. Lett. C	c) the other roles and business functions having specific tasks with regard to internal control and risk management, organised depending on the company's size, complexity and risk profile;	12,50%	22,79%	10,29%
16	Art. 7 – Internal control and risk management system	7.P.3. Lett. D	d) the Board of statutory auditors, also as "audit committee", which is responsible for oversight of the internal control and risk management system.	16,18%	40,44%	24,26%
17	Art. 7 – Internal control and risk management system	7.P.3.	Each issuer shall provide for coordination methods between the above mentioned bodies in order to enhance the efficiency of the internal control and risk management system and reduce activities overlapping.	38,24%	84,56%	46,32%
18	Art. 7 – Internal control and risk management system	7.P.4. Co. 1	The control and risk committee is made up of independent directors. Alternatively, the committee can be made up of non executive directors, the majority of which being independent ones; in this case, the chairman of the committee is selected among the independent directors. If the issuer is controlled by another listed company or is subject to the direction and coordination activity of another company, the committee shall be made up exclusively of independent directors.	74,26%	80,88%	6,62%
19	Art. 7 – Internal control and risk management system	7.P.4. Co. 2	At least one member of the committee is required to have an adequate experience in the area of accounting and finance or risk management, to be assessed by the Board of Directors at the time of appointment.	78,09%	81,62%	3,53%
20	Art. 7 – Internal control and risk management system	7.C.1. Lett. A	The Board of Directors, with the opinion of the control and risk committee, shall: a) define the guidelines of the internal control and risk management 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 compatibility of such risks with the management of the company in a manner consistent with its strategic objectives;	76,32%	80,15%	3,82%
21	Art. 7 – Internal control and risk management system	7.C.1. Lett. B	b) evaluate, at least on an annual basis, the adequacy of the internal control and risk management system taking into account the characteristics of the company and its risk profile, as well as its effectiveness;	77,59%	78,68%	1,09%
22	Art. 7 – Internal control and risk management system	7.C.1. Lett. C	c) approves, at least on an annual basis, the plan drafted by the person in charge of internal audit, after hearing the Board of statutory auditors and the director in charge of the internal control system;	29,41%	58,09%	28,68%
23	Art. 7 – Internal control and risk management system	7.C.1. Lett. D	d) describe, in the Corporate Governance Report, the main features of the internal control and risk management system and how the different subjects involved therein are coordinated, expressing the evaluation on its adequacy;	24,26%	38,97%	14,71%
24	Art. 7 – Internal control and risk management system	7.C.1. Lett. E	e)after hearing the Board of statutory auditors, it assesses the findings reported by the external auditor in the suggestions letter, if any, and in the report on the main issues resulting from the auditing.	37,94%	44,85%	6,91%

Table 3 (part 2) - Overview of the percentage of companies that have obtained a "threshold value" score

Num.	Articles	Principles	Contents	% of firms meeting attributes (2012)	% of firms meeting attributes (2015)	Increase
25	Art. 7 – Internal control and risk management system	7.C.1. Co. 2	The Board of Directors shall, upon proposal of the director in charge of the internal control and risk management system, subject to the favourable opinion of the control and risk committee, as well as after hearing the Board of statutory auditors: - appoint and revoke the person in charge of the internal audit function; - ensure that such a person is provided with the adequate resources for the fulfilment of his/her responsibilities; - define the relevant remuneration consistently with company's policies.	24,26%	62,50%	38,24%
26	Art. 7 – Internal control and risk management system	7.C.2. Lett. A	The control and risk committee, when assisting the Board of Directors shall: […] a) evaluate together with the person responsible for the preparation of the corporate financial documents, after hearing the external auditors and the Board of statutory auditors, the correct application of the accounting principles, as well as their consistency for the purpose of the preparation of the consolidated financial statements, in any;	79,83%	91,91%	12,09%
27	Art. 7 – Internal control and risk management system	7.C.2. Lett. B	b) express opinions on specific aspects relating to the identification of the main risks for the company;	77,29%	89,71%	12,41%
28	Art. 7 – Internal control and risk management system	7.C.2. Lett. C	c) review the periodic reports of the internal audit function concerning the assessment of the internal control and risk management system, as well as the other reports of the internal audit function that are particularly significant;	27,65%	68,24%	40,59%
29	Art. 7 – Internal control and risk management system	7.C.2. Lett. D	d) monitor the independence, adequacy, efficiency and effectiveness of the internal audit function;	19,03%	55,29%	36,26%
30	Art. 7 – Internal control and risk management system	7.C.2. Lett. E	e) request the internal audit function to carry out reviews of specific operational areas, giving simultaneous notice to the chairman of the Board of statutory auditors;	12,29%	40,15%	27,85%
31	Art. 7 – Internal control and risk management system	7.C.2. Lett. F	f) report to the Board of Directors, at least every six months, on the occasion of the approval of the annual and half-year financial report, on the activity carried out, as well as on the adequacy of the internal control and risk management system;	27,35%	48,97%	21,62%
32	Art. 7 – Internal control and risk management system	7.C.3.	The chairman of the Board of statutory auditors or another statutory auditor designated by this chairman shall participate in the works of the control and risk committee; the remaining statutory auditors are also allowed to participate.	57,35%	63,09%	5,74%
33	Art. 7 – Internal control and risk management system	7.C.4. Lett. A	The director in charge of the internal control and risk management system, shall: a) identify the main business risks, taking into account the characteristics of the activities carried out by the issuer and its subsidiaries, and submit them periodically to the review of the Board of Directors;	68,09%	87,50%	19,41%
34	Art. 7 – Internal control and risk management system	7.C.4. Lett. B	b) implement the guidelines defined by the Board of Directors, taking care of the planning, realization and management of the internal control and risk system, constantly monitoring its adequacy and effectiveness;	65,59%	77,21%	11,62%
35	Art. 7 – Internal control and risk management system	7.C.4. Lett. C	c) adjust such system to the dynamics of the operating conditions and the legislative and regulatory framework;	50,74%	70,59%	19,85%
36	Art. 7 – Internal control and risk management system	7.C.4. Lett. D	d) request to internal audit function to carry out reviews of specific operational areas and on the compliance of business operation with rules and internal procedures, giving simultaneous notice to the chairman of the Board of Directors, the chairman of control and risk committee and the chairman of the Board of statutory auditors;	49,91%	71,32%	21,41%
37	Art. 7 – Internal control and risk management system	7.C.4. Lett. E	e) promptly report to the control and risk committee(or to the Board of Directors) issues and problems that resulted from his/her activity or of which he/she became aware in order for the committee (or the Board) to take the appropriate actions.	54,71%	63,97%	9,26%
38	Art. 7 – Internal control and risk management system	7.C.5. Lett. A	The person in charge of internal audit shall: a) verify, both on a continuous basis and in relation to special needs, in conformity with international professional standards, the adequacy and effective functioning of the internal control and risk management system, through an audit plan, to be approved by the Board of Directors. Such a plan shall be based on a structured analysis and ranking of the main risks;	50,74%	68,38%	17,65%
39	Art. 7 – Internal control and risk management system	7.C.5. Lett. B	b) not be responsible for any operational area and be subordinated to the Board of Directors;	54,15%	75,00%	20,85%
40	Art. 7 – Internal control and risk management system	7.C.5. Lett. C	c) have direct access to all useful information for the performance of its duties;	59,94%	76,47%	16,53%
41	Art. 7 – Internal control and risk management system	7.C.5. Lett. D	d)draft periodic reports containing adequate information on its own activity, and on the company's risk management process, as well as about the compliance with the management plans defined for risk mitigation. Such periodic reports contain an evaluation on the adequacy of the internal control and risk management system;	40,44%	59,85%	19,41%
42	Art. 7 – Internal control and risk management system	7.C.5. E	e)prepare timely reports on particularly significant events;	37,35%	52,21%	14,85%
43	Art. 7 – Internal control and risk management system	7.C.5. Lett. F	f) submit the reports indicated under items d) and e) above to the chairman of the Board of statutory auditors, the control and risk committee and the Board of Directors, as well as to the director in charge of the internal control and risk management system;	42,65%	74,26%	31,62%
44	Art. 7 – Internal control and risk management system	7.C.5. G	g) verify, according to the audit plan, the reliability of information systems, including the accounting one.	37,50%	60,29%	22,79%
45	Art. 7 – Internal control and risk management system	7.C.6.	The internal audit function may be entrusted, as a whole or by business segments, to a person external to the issuer, provided, however, that it is endowed with adequate professionalism, independence and organization. The adoption of such organizational choices, with a satisfactory explanation of the relevant reasons, shall be disclosed to the shareholders and the market in the Corporate Governance Report.	48,53%	57,35%	8,82%

5. Corporate governance Indices and market value

In this section, we examine the evaluation effect of our ICS-Index in a multivariate framework. In particular, we run the following OLS regression estimating the MV/BV panel regressions on our Index and a set of control variables.

$$\frac{MV}{BV}_i = \beta + \beta_1\, ICS - I_i + \beta_2\, ROA_i + \beta_3\, LEV_i + \beta_4\, LnAsset_i + \beta_5 Float_i + \beta_6\, i.sector + \beta_7\, i.year + \varepsilon_i$$

Therefore, the resulting valuations together with some economic / financial determinants of MV / BV are used to adapt to the linear model. The choice of control variables is based on previous research work on CG indices. We selected the leverage ratio, defined as the ratio of total debt to total assets, as a measure for the financial structure, and ROA, defined as the ratio of operating income to total assets, as a measure for profitability, LnAssets as measure for the company size and Floating, as the level of pure investors (ownership structure). Table 1 shows some accounting and financial descriptions of our sample. Column 1 of Table 4 show estimates when we register the MV/BV on the governance ICS-I, checking for the financial structure of the company, its profitability and the ownership structure. The most important, the coefficient on OUR index are estimated positive and significant (99%).

Table 4 - Results for the ICS-Index

Dependent Variable: MV/BV	Standard Specification	Whit Industry (control variable)	Differences
	(1)	(2)	(3)
_Cons	2.757**	2.131	
	(0.014)	(0.108)	
CGI1	1.636**	1.380**	0.256
	(0.018)	(0.040)	(0.022)
ROA	2.843***	3.109***	0,266
	(0.000)	(0.000)	(0.000)
LEV	0.142	0.524	0.382
	(0.782)	(0.343)	(-0.439)
LnAsset	0.155***	0.125**	0.030
	(0.005)	(0.027)	(0.022)
Float	0.788	1.015*	0.227
	(0.174)	(0.080)	(-0.094)
Industry		yes	
Year	1.178***	2.131	0.953
	(0.000)	(0.118)	(0.118)
N. of Obs	272	272	272
Prob > F	0.000	0.000	0.000
R-squared	0.1208	0.2182	0.097
Adj R-Squared	0.1009	0.1724	0.071

The results suggest that market value increases when companies invest in aspects of internal control. The interpretation of this result is that better governance, and in particular a better internal control system, increases investor

confidence by making it easier for companies to access external financing. Therefore, CG relationships, like other non-financial information available to the market, are a further tool by which shareholders evaluate their investments. Regarding the control variables, our results correspond to what has already emerged in the literature. The ROA coefficient is significant and positive and, consistent with Aggarwal et al. (2009), we never highlight significant coefficients for leverage. The LnAssets coefficient is significant with a negative coefficient in all three specifications. This result could be due in part to the choice of the companies analyzed. In fact, our dataset concerns all the largest companies listed on the Italian stock market[17]. Furthermore, a further explanation for this result could be that solid reputation plays a role in the perception that shareholders have of CG[18]. Italian companies with relatively small size, with a less established reputation, need to leverage investors with non-financial information, while large companies benefit from their reputation and impact on the market.

Furthermore, to account for industry sources of heterogeneity, we introduce the sector as a control variable. This allows you to focus on changes in governance scores that are truly specific and not influenced by industry-specific differences. In fact, it emerged in the literature that the sector is a decisive element for CG. The results when we add the industrial sector as another control variable are almost unchanged. Column 2 of Table 4 show that the coefficient on the governance index always remain positive and significant (95%).

5.2 Endogeneity discussion

Studies that address the possible link between CG and performance have several common problems recognized in the literature. A significant problem in examining the impact of CG on performance or market value is that of endogeneity. Firstly, unobserved heterogeneity can arise if both firm performance and CG aspects are jointly determined by an unobservable specific variable. Secondly, the CG level implement by companies may be determined by past performance (dynamic endogeneity). Previous studies have attempted to overcome these problems by different systems. One way to address first problem is with a firm fixed

[17] We have excluded the companies belonging to the AIM sector. If analyzing table 1, a relatively high mean value (20.32) emerges for the size of the companies included in our analysis.
[18] See, for instance, Allen, Qian, and Qian (2005) for the role of reputation.

effects model. Similar to many previous researches, our total score suffers from an invariant component over time as compliance is gradual, with few changes over time; hence, we cannot use firms' fixed effects[19]. Arcot and Bruno (2007) show that companies remain compliant over time, the changes are gradual and that companies rarely lower their compliance levels. This leads to the assertion that companies that decide to invest in governance will have progressive increases in the governance index while scores of others tends to remain the same. We do not use fixed effects because the inclusion of companies' fixed effects would therefore force identification of the total score from only these changes[20]. One way to address second problem is by employing instrumental variable techniques. Many researchers tried to apply instrumental variables to overcome this problem (Postma *et al.,* 2003; Beiner *et al.,* 2006; Bhagat and Bolton, 2008 and Bennedsen *et al.,* 2008). However, although instrumental variable regressions potentially eliminate endogeneity, they require the identification of strictly exogenous instrumental variables which is almost impossible in a CG setting (Wintoki, 2012)[21].

6. Conclusions and contributions

Research on the link between CG and market value (or performance) has been much discussed in recent years. The key issue for all these studies dealt with understanding the contribution of CG to market value and performance.

As the above steps very clearly show, we find evidence that a measure of CG in the Italian context is strongly associated with the MV/BV ratio. This underlines the importance of the contribution of a higher quality CG to the level of the market premium involves the disclosure of large non-financial information companies. Our results suggest that shareholders and market participants pay attention to CG and, as a result, the CG report plays an important role for stakeholders and the company.

[19] Governance indices suffer from an invariable component over time since compliance with the principles of the corporate governance code of companies is gradual. Corporate governance is not a factor that can be changed quickly. Radical changes can only take place over several years and changes to the government are made progressively, also in order not to destabilize existing company structures.
[20] For further information on this aspect, see among others Gompers et. al, 2003.
[21] An additional element is that the instrumental variables must be adequate. In literature there has been much discussion about which instrumental variables to use, and it is not easy to identify adequate instrumental variables. Use weak tools can lead to problems of inference in the estimation. An instrument is "weak" if the correlation between the instruments and the endogenous variable is small. Nelson and Startz (1990) and Bound, Jaeger and Baker (1995) were among the first to discuss how instrumental variables estimation can perform poorly if the instruments are weak.

CG report, like other non-financial information available to the market, is a further tool which shareholders evaluate their investments through and are therefore a valuable information tool for companies. Thus, the costs of implementing CG mechanisms seem to bring benefits, such as higher cash flows for investors and lower capital costs for companies. As a result, from a company prospective, CG should be understood as an opportunity rather than an obligation and a pure cost factor. This result is consistent with our previous expectations, according to which a "good" CG (and an adequate disclosure) is an important driver for capturing market returns, even where economic results are the same. This is also consistent with what the previous literature discovered in the European country surveys (Toudas and Karathanassis (2007), Drobetz et al. (2004), Shabbir and Pagett (2008), and Beiner et al. (2006)).

Our work does not overcome the problems of endogeneity that characterize the studies on CG topic, but provides a further contribution for future researchers and provides a new point of view by analyzing an unexplored market. This Study, to the knowledge of the authors, is the first research that uses additive indices to study the relationship between the internal control system and the market evaluation in the Italian context.

Our results provide further validation that the attributes of governance, albeit in different measures, are an important element for the value of the enterprise. Since a “good” system of internal control is a way to strengthen market value, despite the company's economic and financial results, this research could encourage managers to increase their efforts in governance. Finally, the analysis of CG in the "comply or explain" context enables us to clearly infer corporate behavior and consequently its effect on performance. Our study can thus give directions to policymakers in countries trying to implement CG codes.

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Appendix 1 (part 1)

Num.	Articles	Principles	Contents
1	Art. 1 – Role of the Board of Directors	1.C.1. Lett. B	The Board of Directors shall: [...] b) define the risk profile, both as to nature and level of risks, in a manner consistent with the issuer's strategic objectives
2	Art. 1 – Role of the Board of Directors	1.C.1. Lett. C	The Board of Directors shall: [...] c) evaluate the adequacy of the organizational, administrative and accounting structure of the issuer as well as of its strategically significant subsidiaries in particular with regard to the internal control system and risk management;
3	Art. 1 – Role of the Board of Directors	1.C.1. Lett. I	The Board of Directors shall: [...] i) provide information in the Corporate Governance Report on (1) its composition, indicating for each member the qualification [...] the relevant role held within the Board of Directors […] the main professional characteristics as well as the duration of his/her office since the first appointment; [...]
4	Art. 4 – Internal committees of the Board of Directors	4.P.1.	The Board of Directors shall establish among its members one or more committees with proposing and consultative functions according to what set out in the articles below.
5	Art. 4 – Internal committees of the Board of Directors	4.C.1. Lett. F/G	Persons who are not members of the committee, including other Board members or persons belonging to issuer's structure, may participate in the meetings of each committee upon invitation of the same, with reference to individual items on the agenda; [...] the issuer shall provide adequate information, in the Corporate Governance Report, on the establishment and composition of committees, the contents of the mandate entrusted to them, as well as, on the basis of the indications provided for by each committee, the activity actually performed during the fiscal year, the number of meetings held, their average duration and the relevant percentage of participation of each member.
6	Art. 4 – Internal committees of the Board of Directors	4.C.2.	The establishment of one or more committees may be avoided and the relevant duties may be assigned to the Board of Directors, under the coordination of the Chairman and provided that: (i) independent directors are at least half of the Board of Directors members; if the number of the Board members is odd, a rounding down to the lower unit shall be carried out; (ii) adequate time is dedicated during the Board meetings to actions that the Code requires the Committees to carry out, and this circumstance is disclosed in the Corporate Governance Report; (iii) as far as the control and risk committee is concerned, the issuer is neither controlled by another listed company nor it is subject to direction and coordination. The Board of Directors describes in detail in the Corporate Governance Report the reasons underlying the choice not to establish one or more committees; in particular, it provides adequate grounds for the choice not to establish the risks and control committee in consideration of the complexity level of the issuer and the sector in which it operates. In addition, the Board shall periodically reassess the choice made.
7	Art. 6 – Remuneration of directors	6.P.3.	The Board of Directors shall establish among its members a remuneration committee, made up of independent directors. Alternatively, the committee 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. At least one committee member shall have an adequate knowledge and experience in finance or remuneration policies, to be assessed by the Board of Directors at the time of his/her appointment.
8	Art. 6 – Remuneration of directors	6.C.3.	Any incentive plan for the person in charge of internal audit and for the person responsible for the preparation of the corporate financial documents shall be consistent with their role.
9	Art. 7 – Internal control and risk management system	7.P.1.	Each issuer shall adopt an internal control and risk management system consisting of policies, procedures and organizational structures aimed at identifying, measuring, managing and monitoring the main risks. Such a system shall be integral to the organizational and corporate governance framework adopted by the issuer and shall take into consideration the reference model and the best practices that are applied both at national and international level.
10	Art. 7 – Internal control and risk management system	7.P.2.	An effective internal control and risk management system contributes to the management of the company in a manner consistent with the objectives defined by the Board of Directors, promoting an informed decision-making process. It contributes to ensuring the safeguarding of corporate assets, the efficiency and effectiveness of management procedures, the reliability of the information provided to the corporate bodies and to the market and the compliance with laws and regulations, including the by-laws and internal procedures.
11	Art. 7 – Internal control and risk management system	7.P.3. Lett. A	a) the Board of Directors, that shall provide strategic guidance and evaluation on the overall adequacy of the system, identifying within the Board:
12	Art. 7 – Internal control and risk management system	7.P.3. Lett. A punto i)	(i) one or more directors to be charged with the task of establishing and maintaining an effective internal control and risk management system, and
13	Art. 7 – Internal control and risk management system	7.P.3. Lett. A punto ii)	(ii) a control and risk committee in line with the requirements set forth by principle 7.P.4., to be charged with the task 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;
14	Art. 7 – Internal control and risk management system	7.P.3. Lett. B	b) the person in charge of internal audit, entrusted with the task to verify the functioning and adequacy of the internal control and risk management system;
15	Art. 7 – Internal control and risk management system	7.P.3. Lett. C	c) the other roles and business functions having specific tasks with regard to internal control and risk management, organised depending on the company's size, complexity and risk profile;
16	Art. 7 – Internal control and risk management system	7.P.3. Lett. D	d) the Board of statutory auditors, also as "audit committee", which is responsible for oversight of the internal control and risk management system.
17	Art. 7 – Internal control and risk management system	7.P.3.	Each issuer shall provide for coordination methods between the above mentioned bodies in order to enhance the efficiency of the internal control and risk management system and reduce activities overlapping.
18	Art. 7 – Internal control and risk management system	7.P.4. Co. 1	The control and risk committee is made up of independent directors. Alternatively, the committee can be made up of non executive directors, the majority of which being independent ones; in this case, the chairman of the committee is selected among the independent directors. If the issuer is controlled by another listed company or is subject to the direction and coordination activity of another company, the committee shall be made up exclusively of independent directors.
19	Art. 7 – Internal control and risk management system	7.P.4. Co. 2	At least one member of the committee is required to have an adequate experience in the area of accounting and finance or risk management, to be assessed by the Board of Directors at the time of appointment.
20	Art. 7 – Internal control and risk management system	7.C.1. Lett. A	The Board of Directors, with the opinion of the control and risk committee, shall: a) define the guidelines of the internal control and risk management 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 compatibility of such risks with the management of the company in a manner consistent with its strategic objectives;
21	Art. 7 – Internal control and risk management system	7.C.1. Lett. B	b) evaluate, at least on an annual basis, the adequacy of the internal control and risk management system taking into account the characteristics of the company and its risk profile, as well as its effectiveness;
22	Art. 7 – Internal control and risk management system	7.C.1. Lett. C	c) approves, at least on an annual basis, the plan drafted by the person in charge of internal audit, after hearing the Board of statutory auditors and the director in charge of the internal control system;
23	Art. 7 – Internal control and risk management system	7.C.1. Lett. D	d) describe, in the Corporate Governance Report, the main features of the internal control and risk management system and how the different subjects involved therein are coordinated, expressing the evaluation on its adequacy;
24	Art. 7 – Internal control and risk management system	7.C.1. Lett. E	e)after hearing the Board of statutory auditors, it assesses the findings reported by the external auditor in the suggestions letter, if any, and in the report on the main issues resulting from the auditing.

Appendix 1 (part 2)

Num.	Articles	Principles	Contenuti
25	Art. 7 – Internal control and risk management system	7.C.1. Co. 2	The Board of Directors shall, upon proposal of the director in charge of the internal control and risk management system, subject to the favourable opinion of the control and risk committee, as well as after hearing the Board of statutory auditors: - appoint and revoke the person in charge of the internal audit function; - ensure that such a person is provided with the adequate resources for the fulfilment of his/her responsibilities; - define the relevant remuneration consistently with company's policies.
26	Art. 7 – Internal control and risk management system	7.C.2. Lett. A	The control and risk committee, when assisting the Board of Directors shall: […] a) evaluate together with the person responsible for the preparation of the corporate financial documents, after hearing the external auditors and the Board of statutory auditors, the correct application of the accounting principles, as well as their consistency for the purpose of the preparation of the consolidated financial statements, in any;
27	Art. 7 – Internal control and risk management system	7.C.2. Lett. B	b) express opinions on specific aspects relating to the identification of the main risks for the company;
28	Art. 7 – Internal control and risk management system	7.C.2. Lett. C	c) review the periodic reports of the internal audit function concerning the assessment of the internal control and risk management system, as well as the other reports of the internal audit function that are particularly significant;
29	Art. 7 – Internal control and risk management system	7.C.2. Lett. D	d) monitor the independence, adequacy, efficiency and effectiveness of the internal audit function;
30	Art. 7 – Internal control and risk management system	7.C.2. Lett. E	e) request the internal audit function to carry out reviews of specific operational areas, giving simultaneous notice to the chairman of the Board of statutory auditors;
31	Art. 7 – Internal control and risk management system	7.C.2. Lett. F	f) report to the Board of Directors, at least every six months, on the occasion of the approval of the annual and half-year financial report, on the activity carried out, as well as on the adequacy of the internal control and risk management system;
32	Art. 7 – Internal control and risk management system	7.C.3.	The chairman of the Board of statutory auditors or another statutory auditor designated by this chairman shall participate in the works of the control and risk committee; the remaining statutory auditors are also allowed to participate.
33	Art. 7 – Internal control and risk management system	7.C.4. Lett. A	The director in charge of the internal control and risk management system, shall: a) identify the main business risks, taking into account the characteristics of the activities carried out by the issuer and its subsidiaries, and submit them periodically to the review of the Board of Directors;
34	Art. 7 – Internal control and risk management system	7.C.4. Lett. B	b) implement the guidelines defined by the Board of Directors, taking care of the planning, realization and management of the internal control and risk system, constantly monitoring its adequacy and effectiveness;
35	Art. 7 – Internal control and risk management system	7.C.4. Lett. C	c) adjust such system to the dynamics of the operating conditions and the legislative and regulatory framework;
36	Art. 7 – Internal control and risk management system	7.C.4. Lett. D	d) request to internal audit function to carry out reviews of specific operational areas and on the compliance of business operation with rules and internal procedures, giving simultaneous notice to the chairman of the Board of Directors, the chairman of control and risk committee and the chairman of the Board of statutory auditors;
37	Art. 7 – Internal control and risk management system	7.C.4. Lett. E	e) promptly report to the control and risk committee(or to the Board of Directors) issues and problems that resulted from his/her activity or of which he/she became aware in order for the committee (or the Board) to take the appropriate actions.
38	Art. 7 – Internal control and risk management system	7.C.5. Lett. A	The person in charge of internal audit shall: a) verify, both on a continuous basis and in relation to special needs, in conformity with international professional standards, the adequacy and effective functioning of the internal control and risk management system, through an audit plan, to be approved by the Board of Directors. Such a plan shall be based on a structured analysis and ranking of the main risks;
39	Art. 7 – Internal control and risk management system	7.C.5. Lett. B	b) not be responsible for any operational area and be subordinated to the Board of Directors;
40	Art. 7 – Internal control and risk management system	7.C.5. Lett. C	c) have direct access to all useful information for the performance of its duties;
41	Art. 7 – Internal control and risk management system	7.C.5. Lett. D	d)draft periodic reports containing adequate information on its own activity, and on the company's risk management process, as well as about the compliance with the management plans defined for risk mitigation. Such periodic reports contain an evaluation on the adequacy of the internal control and risk management system;
42	Art. 7 – Internal control and risk management system	7.C.5. E	e)prepare timely reports on particularly significant events;
43	Art. 7 – Internal control and risk management system	7.C.5. Lett. F	f) submit the reports indicated under items d) and e) above to the chairman of the Board of statutory auditors, the control and risk committee and the Board of Directors, as well as to the director in charge of the internal control and risk management system;
44	Art. 7 – Internal control and risk management system	7.C.5. G	g) verify, according to the audit plan, the reliability of information systems, including the accounting one.
45	Art. 7 – Internal control and risk management system	7.C.6.	The internal audit function may be entrusted, as a whole or by business segments, to a person external to the issuer, provided, however, that it is endowed with adequate professionalism, independence and organization. The adoption of such organizational choices, with a satisfactory explanation of the relevant reasons, shall be disclosed to the shareholders and the market in the Corporate Governance Report.

Appendix 2

INDUSTRY	Observations	% of sample
Oil & Gas	12	4%
basic materials	4	1%
Industrials	82	30%
Consumer goods	50	18%
Health Care	8	3%
Consumer services	30	11%
Telecommunications	6	2%
Utilities	34	13%
Financials	18	7%
Technology	28	10%
TOTALE	**272**	**100%**

Appendix 3

CoSO-ERM Elements			
Q.ty	**Name**	**Descrition**	**%**
14	Internal Environment	Control environmental attributes encompasses the tone of an organization, and sets the basis for how risk is viewed and addressed by an entity's people, including risk management philosophy and risk appetite, integrity and ethical values, and the environment in which they operate.	19%
5	Objective Setting	Objective setting attributes ensures that management has in place a process to set objectives and that the chosen objectives support and align with the entity's mission and are consistent with its risk appetite.	7%
5	Event Identification	Event identification attributes contribute to identify Internal and external events affecting achievement of an entity's objectives, distinguishing between risks and opportunities.	7%
9	Risk Assessment	Risk Assessment attributes help to analyze the risks, considering likelihood and impact, and help to as a basis for determining how they should be managed.	12%
6	Risk Response	Risk Response attribute concern the management selections to risk responses. These attributes develop a set of actions to align risks with the entity's risk tolerances and risk appetite.	8%
8	Control Activities	Control Activities attributes include systems, policies and procedures established and implemented to help ensure the risk responses are effectively carried out.	11%
13	Information and Communication	Information and Communication attributes guarantee that relevant information is captured and communicated to obtain the effective comunication and also to carry out management responsibilities.	17%
15	Monitoring	Monitoring attributes – concern management activities to verify that he entirety of enterprise risk management is monitored and modifications made as necessary.	20%

Appendix 4

No Disclosure	Mark = 0	No information regarding the compliance to the requirement is currently disclosed
Very Limited Disclosure	Mark = 1	Information on the topic are only partially disclosed
Limited Disclosure	Mark = 2	Some information on the topic are fully disclosed, but some are missing
Sufficient Disclosure	Mark = 3	All the requirement are addressed, using the same statements of the code, with poor incremental information
Adequate Disclosure	Mark = 4	Compliance to all the topics is sometimes combined with useful in-depth information
Full Disclosure	Mark = 5	All the requirement are fully explained