



**The remunerations of the non-executive members  
– are these influenced by the structure of the  
Remuneration Committee?**

by

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## **Biographical Note**

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## **Abstract**

The Remuneration Committee and the executive's compensation practices have been the subject of several studies for the past decades, due to their crucial and recognized impact on the company's organization. More recently, these issues have attracted considerable public attention due to the latest corporate scandals observed worldwide.

The aim of this study will be to examine the non-executive's remuneration and how this might be affected by the characteristics of the Remuneration Committee, mainly by analysing the impact of its level of independence.

Several studies have been developed focusing on the design and structure of the executive remuneration schemes. However, regarding the specific case of the non-executive remuneration and its potential relation with the Remuneration Committee, the empirical evidence is either insufficient or lacking significance. By studying the Portuguese case, we will try also to analyse the CMVM's (Comissão de Mercado de Valores Mobiliários - Portuguese Securities Market Commission) recommendations on this topic and understand their impact on the non-executive remunerations.

Our main findings lead us to conclude that the non-executive's total remuneration per capita is positively influenced by firm's size while its relation with firm's performance is insignificant in what concerns total or fixed pay, but significantly negative in terms of variable pay. Unlike the multinational factor, which revealed a strong and positive impact on the level of non-executive's compensation, we did not observe any evidence that the independence status of the Remuneration Committee had a significant influence on non-executive remunerations. Also we did not find evidence that the likelihood that a firm pays exclusively a fixed salary to non-executive directors (as recommended by CMVM and other issuers of governance recommendations) was influenced by the firm's size, ownership structure, by the multinational factor or by the Remuneration Committee structure.

**Key-words:** Remuneration Committee, Non-Executive's Compensation, Independent Directors.

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## **List of abbreviations**

AEM – Associação de Empresas Emitentes de Valores Cotados em Mercado

ASSC – Accounting Standards Steering Committee

BES – Banco Espírito Santo

BPN – Banco Português de Negócios

CEO – Chief Executive Officer

CLIC – Colégio Luso Internacional do Centro

CMVM – Comissão de Mercado de Valores Mobiliários

CSC – Código das Sociedades Comerciais

EBIT – Earnings before interests and taxes

IPCG – Instituto Português de Corporate Governance

NACD – National Association of Corporate Directors

NYSE – New York Stock Exchange

OECD – Organization for Economic Co-operation and Development

OLS – Ordinary Least Squares

PT – Portugal Telecom

ROA – Return on Assets

ROCE – Return on Capital Employed

SEC – Securities and Exchange Commission

S&P – Standard & Poor's

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## **Introduction**

In public companies, which might be characterized by having management separated from ownership, there is an on-going inherent risk of having non-concordant objectives between the management and the shareholders (Jensen and Meckling, 1976). As so, the set of possible tools that can bring a considerable level of control over the management has led to the concept of Corporate Governance.

For the past decades, a substantial attention has been devoted to the area of Corporate Governance, but this interest has been recently re-launched by the latest financial scandals also related to the possible high and unadjusted compensation schemes verified worldwide.

Nowadays, the Remuneration Committee may be seen as a mechanism of corporate governance within a company, allowing a better alignment of interests between shareholders and the management (Silva, 2009). Furthermore, it is frequently perceived as a useful tool in order to design more adequate compensation schemes inside a corporation (Main and Johnston, 1993; Conyon *et al.*, 1995).

In the last decade, we have observed a renewed interest on this topic mostly related to the higher number of financial collapses of large corporations worldwide, arguably due to accounting fraud and bad management, such as Enron and WorldCom. In fact, the 2008 financial crisis was the latest manifestation for an on-going debate that has dedicated a substantial attention to this subject as a balanced and consistent remuneration policy can be seen as an incentive to better control the management team inside a corporation. This recent financial crisis called the attention to the importance of a firm-level governance for the economy as a whole, illustrating the consequences which went “*above and beyond the individual firms involved*” (Edmans, 2013, pp. 2).

Several studies have been made about the executive’s remuneration and how it should be designed. However, there is little evidence regarding the specific case of the non-executives’ remuneration and its potential relation with the firm’s characteristics, specifically with the Remuneration Committee’s structure.

In addition, following a reality associated with financial problems and corporate bankruptcies which have strongly questioned existing corporate models, the role played

by non-executive directors inside a corporation has become more critical since these might have the ability to help solving at least, part of the observed problems.

Motivated by the recent scandals in the area of Corporate Governance and by the lack of studies relying on non-executives remuneration, this study will be centred on the Portuguese market, aiming to understand whether the non-executive's compensation is affected by the Remuneration Committee structure, by linking the non-executive remunerations with the Committee's characteristics and mostly by analysing the proportion of the independent directors.

Recent research has been focused in understanding the directors' remuneration policies and how these may be influenced by distinct factors such as the firm's performance, the company's size and the stock market behaviour. However, some authors agree that further studies and more robust conclusions are necessary, since the empirical evidence is contradictory or lacks statistical significance.

This study may be particularly interesting in a country like Portugal where corporate governance is developed mainly based on issued recommendations, where few rules or specific laws are defined and where recent governance scandals have also been recently observed (e.g. Banco Espírito Santo (BES), Portugal Telecom (PT) and Banco Português de Negócios (BPN)) and much discussed.

The structure of this study will proceed as follows. The first section will present a literature review, followed by a description of the methodology used, including the variables' description, as well as the descriptive statistics. The third section presents several regressions estimated and the associated results aiming to determine which factors better contribute for the explanation of the remuneration of the non-executive directors. The last section will present the major conclusions, limitations of the study and the main avenues for further research.

# 1. Literature Review

## 1.1. The concept of Corporate Governance

Nowadays, organizations can be defined as “*simply legal fictions which serve as a nexus for a set of contracting relationships among individuals*” (Jensen and Meckling, 1976, pp. 8). According to the White book (*Livro Branco* in Portuguese) about Corporate Governance (Silva *et al.*, 2006), firms are also seen as a conjunction of contracts and juridical relations which allow limiting the owner’s responsibility. Moreover, due to the high complexity of these relationships between all the entities involved, the so called stakeholders, Corporate Governance gained a notable importance on the business world.

For the past 25 years, Corporate Governance has been under intense research and discussion, for both the popular and business press, but it has recently gained a particular interest due to the latest financial scandals verified worldwide. As a result, we believe it is important to define Corporate Governance, even though there isn’t a worldwide consensus regarding the definition itself - “*There are no universally agreed-upon standards that determine good governance*” (Larcker and Tayan, 2011, pp. 10).

In theory, the concept of Corporate Governance descends from the classic paradigm of the corporation and the power of the ownership (Larcker and Tayan, 2011). In other words, the owner of a corporation has the right to govern the company, aiming to follow the value maximization principle, although an issue arises when there is a separation between management and ownership. The divergence of ownership and management originates agency risks and consequently agency costs. As a result, we can sustain that Corporate Governance surges as a natural solution to address this challenge. However, corporate governance control measures to discourage self-interested managers should be weighted against the agency costs associated and the ability to mitigate those (Larcker and Tayan, 2011).

The definition is very broad and has been under intense development over time, with several authors contributing with their knowledge and results to this problematic. As the 21<sup>st</sup> century dawned, following the evolution path observed in the society, corporate governance seems to be developing in order to be adequate and in line with the new

demands of the business world. As a result, it is currently possible to observe codes of principles or best practices in corporate governance in most countries with stock markets<sup>1</sup>, aiming to contribute to a sustained development and to avoid additional financial scandals and failures in the economy. The major reasons behind these codes and recommendations rely on the past episodes just mentioned, which transfers a lack of confidence over the financial information published and the level of efficiency of the supervising activities over listed firms, when in presence of deficient corporate governance practices.

One of the most important reports addressing this topic was issued in 1992 by “The Committee on the Financial Aspects of Corporate Governance” and lead by Sir Adrian Cadbury – *The Cadbury Report*. It became significant in influencing thinking around the world, by drawing attention to the importance on the arrangement of company boards as well as its accounting systems, in order to mitigate the corporate governance risks and consequently failures. It was an initiative from the British Government and addressed a number of issues that were not dealt until that moment in time by the company law. After such report, additional documents were published all over Europe, such as *Greenbury*, *Tumbul* and *Hampel* (United Kingdom), *Vienot I* (France), *Preda* (Italy), *Olivencia* (Spain), *Permors* (Holland), *Cardon* (Belgium).

The Cadbury Report defined Corporate Governance as “*the system by which companies are directed and controlled*” (pp. 14). Following this path, Larcker and Tayan (2011) defined corporate governance “*as the collection of control mechanisms that an organization adopts to prevent or dissuade potentially self-interested managers from engaging in activities detrimental to the welfare of shareholders and stakeholders*” (pp. 8).

According to OECD (Organization for Economic Co-operation and Development, 2004), “*Corporate Governance involves a set of relationships between a company’s management, its board, its shareholders and other stakeholders. Corporate Governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance re determined*” (pp. 11).

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<sup>1</sup> For example, “The Corporate Report” issued in 1975 by the ASSC (Accounting Standards Steering Committee), the “Cadbury Report” issued in 1992 and the Sarbanes-Oxley Act in 2002.

As regards to the White Book, Corporate Governance assumes the definition of “*a set of authority structures and supervision of the exercise of that authority, internal and external, which aim to ensure that the company establish and materialize, effectively and efficiently, and action consistently with the contractual relations private purposes for which it was created and is maintained and social responsibilities that are underlying their existence*” (Silva *et al.*, 2006, pp. 12).

Despite all the definitions already presented, many others exist in the literature. According to Chen *et al.* (2009) Corporate Governance can be described as a mechanism used to reduce agency and transaction costs (Macey, 1998), in order to better protect the shareholders against managers and/or controlling shareholders. As a result, the authors state that firms with better corporate governance structures should, in principle, have a higher valuation. Hail and Leuz (2006a) contradicted this theory stating that this effect is still unclear.

Corporate Governance is a complex and dynamic system, involving an interaction between various agents. Therefore, in order to design an effective and adequate model of corporate governance, a broader context should be adopted, taken into consideration important aspects such as the company’s own characteristics, the social, cultural and political environment, the accounting standards, in between other specifics. The current changes in the business environment tend to difficult the attempts to define a standard definition for Corporate Governance (Larcker and Tayan, 2011).

In summary, we can sustain that Corporate Governance is directly concerned with the way business corporations are governed and controlled. It is not only a question of management but also an issue of control. Essentially, Corporate Governance is about the way power is exercised over corporate entities and, it may differ across countries due to the political and legal environment which may result in different corporate governance structures (Li, 1994). Alves (2007) went further by encouraging that corporate governance main purpose is more than control and supervision but instead, involves all the available mechanisms to conduct the firm towards the achievement of a better performance.

## 1.2. Agency Theory and Corporate Governance

In order to understand the concept of Corporate Governance, it is interesting to go back and understand when such a perception was created. Earlier on the 18th century, Adam Smith (1776) identified the agency problem as *“The directors of such companies, however, being managers rather of other people’s money than of their own, it cannot well be expected that they should watch over it with the same anxious vigilance with which the partners in a private copartnery frequently watch over their own.”* (pp. 606 and 607). This concept gained formally shape by Berle and Means (1932), on the 20th century, as these authors studied the evolution of corporations and the separation between ownership and control.

One of the challenges of Corporate Governance is to address the Agency Problem. This topic was defined by Jensen and Meckling (1976) as *“a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent. If both parties to the relationship are utility maximizers, there is good reason to believe that the agent will not always act in the best interests of the principal”* (pp. 5). The authors segregate ownership and control in order to avoid situations where the agent, with no ownership over the firm’s resources, could possibly enhance self-interested decisions that are suboptimal to the principal.

Agency risk also arises from incomplete contracts, first defined by Fama and Jensen (1983). In principle, it should be expected that a contract celebrated between the management and the shareholders could ensure the value maximization for the last ones. However, this situation is an ideal and a probably impossible scenario. Nowadays there is a strong need of having contracts as complete as possible otherwise, we would have non-concordant objectives (maximize the firm’s value and maximize the existing owner’s equity). The authors also studied the separation of management and ownership as a way to alleviate the agency problem.

In the last decades, the Agency theory has been discussed in several contexts. In fact, some authors mention that the agency problems do not arise exclusively from the relationship between managers and shareholders. Indeed, there is the need to look beyond the contractual relations of the firm. This view encourages the existence of a

Corporate Governance models able to emphasize questions like social responsibility, the company's environment and own characteristics, among other specific issues. The aim is to align as nearly as possible the interests of individuals, corporations and society, in a more complete and closer Corporate Governance model.

### 1.3. Non-executive Directors

Fama (1980) once defined the non-executive directors as “*professional referees*” (pp. 293) based on the idea that their function is to “*stimulate and oversee the competition among the firm's top managers*” (pp. 294), having the encouragement to perform their tasks as monitors of the management team, as they want to develop and protect their reputations as experts (Fama and Jensen, 1983).

Roberts *et al.* (2005) sustain the theory that non-executive directors should be “*challenging but supportive, independent but involved*” (pp. 6) arguing that they are vital considering their influence on the improvement of board effectiveness and due to the source of confidence they represent. The authors defend that “*Whilst board structure, composition and independence condition board effectiveness, we argue that it is the actual conduct of the non-executive vis-à-vis the executive that determines board effectiveness*” (pp. 6), by supporting their leadership and controlling their conduct. Non-executive directors appear to be in between two masters – investors and executives, acting according to two different roles, in order to perform their tasks effectively. The authors end up by classifying the independent non-executive directors as *proxies* for the Board effectiveness. Likewise, they have characterized two types of Boards, defining what they called as “Minimalist Board” where conditions were specifically limited regarding the influence of non-executive directors; and the “Maximalist Board” where non-executive could actively provide their knowledge and exercise their influence over the company.

If in some cases the Board is not capable of designing adequate remuneration schemes, Outside Directors<sup>2</sup> must contribute by effectively monitor the management team, once

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<sup>2</sup> Non-executive directors can also be denominated as *Outsiders*. In fact, normally they are seen as the same person. However, there might be a small difference in cases where one non-executive director has previously been an executive director in the company. In this case, for several authors the director may be considered as an *insider*, as well as a non-executive.



they are less affected by the CEO (Chief Executive Officer) power inside the organization (Fama and Jensen, 1983). For instance, in the United Kingdom the non-executive directors' must work actively in order to ensure the integrity and credibility of the financial statements published (Peasnell *et al.* 1998). Additionally, outside directors perform their monitoring tasks, developing and protecting their reputation as experts.

In 2012, a survey focused on the importance of reputation incentives, identified reputation risk as the top non-financial risk for corporate directors<sup>3</sup>. In fact, directors have their technical abilities and reputation being exposed. Vafeas (1999) and Yermack (2002) sustained the theory that outside directors might abandon under-performing firms, as a way to evade damaging their reputation, avoid legal liability and escape from the work involving restructuring an under-performing corporation. Also Fogel *et al.*, (2014) defend that independent directors<sup>4</sup> tend to protect their reputation as “*damaged reputations hold fewer subsequent directorships and court personal responsibility*” (pp. 1). It is important to remind that highly qualified directors bear opportunity costs when joining a Board of a company. Typically, they more easily tend to prefer offers from well know firms, characterized by their high visibility in the market with the associated personal benefits, rather than smaller firms with a lower visibility where the challenges are expected to be higher and more demanding (Knyazeva *et al.*, 2011).

Recently, Masulis and Mobbs (2013) elaborated a particularly interesting study relating the quality of independent directors and its consequences over the board's actions and firm's outcome. The authors documented that stronger independent directors are expected to act more dynamically to avoid events which can be associated with the likelihood of damaging their reputation. As so, they argue that “*boards with a greater percentage of talented, experienced and highly motivated independent directors, with stronger reputation incentives in their more visible directorships, should more effectively monitor and discipline CEOs to prevent very visible adverse firm outcomes, while promoting better board decision-making and positive firm outcomes*” (pp. 4).

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<sup>3</sup> This survey was conducted by EisnerAmper LLP accounting and consulting firm. Between October 2011 and February 2012 the opinions of 193 directors were analysed by web-based survey with the assistance of the National Association of Corporate Directors (NACD). The survey can be found at <http://www.eisneramper.com/IT-Risk-Management-0512.aspx> and it was discussed, in between others, on the Financial Working Paper n° 353/2013 published by the European Corporate Governance Institute.

<sup>4</sup> The definition of independent director is described on section 1.4.

These conclusions corroborate Holmström's (1999) prior evidence which identifies reputation as an incentive tool that may influence director's actions in order to avoid risky decisions and adverse consequences, but to act on beyond of shareholder's interests. Masulis and Mobbs (2013) documented that for independent directors whose reputation is highly valued, there is a positive relationship associated with firm outcomes, which can be reflected in distinct areas such as stock repurchases, dividend increases, better CEO appointment decisions and performance based CEO incentive contracts. Furthermore, they argue that "*boards with busy directors who view a particular firm as one of their most important directorships are likely to make better decisions that are beneficial to a firm's shareholders. On the other hand, firms with busy directors who view the board as relatively less prestigious are at a greater risk of having the board make poor decisions that are detrimental to shareholders*" (pp. 7). However, as documented by Holmström (1999), it should also be taken into consideration that there might be a negative counterpart in the subject of director reputation incentives. Independent directors, who should monitor the top management teams, may face strong incentives to retain valuable directorships. Since CEOs have a strong influencing role in what concerns reappointments, directors may face strong incentives to avoid challenging the current CEO. In fact, as demonstrated by Masulis and Mobbs (2013), firms experiencing a high proportion of strong motivated independent directors are associated with higher CEO total compensation and to a greater equity based pay.

Knyazeva *et al.* (2011) concluded that even though the proportion of outside directors on a firm's board indicates the degree of board oversight, this metric does not provide sufficiently strong conclusions regarding the board's competence or its ability to provide management with the necessary advices – "*Outside directors with executive expertise may be better able to challenge a CEO and thus, be crucial to improving shareholder wealth*" (pp. 19).

Apart from the CEO power influencing the outside directors' functions, other reasons might be in place that may affect the effectiveness of their job. For instance, if these directors have accumulated jobs in other companies or if they have insufficient information to work with, they may perform their tasks less effectively (Jensen, 1993). This opinion was also shared by Larcker and Tayan (2011) who suggested that non-

executives may work with in an information disadvantage that can contribute to the decrease of their effectiveness, to an “information gap” and to directors not capable of recognizing looming governance problems. In fact, inside directors might be better informed than outside directors. Although non-executives have, in principle, fewer conflicts of interests in relation to the executive directors (also known as *insiders*), they typically present themselves with less firm-specific knowledge (Fama and Jensen, 1983).

Long *et al.* (2005) also contribute to this topic sustaining that the role of the non-executive directors is often seen as that of a long-term decision maker, based on consensus, while Higgs (2003) describes as a guardian of the governance process. Additionally, they can also be described as defenders of shareholder’s interests, a role that assumes a particular importance in firms with diffuse ownership (Li, 1994). This last perspective was equally shared by Larcker and Tayan (2011), who suggested that outsider’s responsibilities are independent from those of management. This perspective is linked with the fact that outside directors are representing the shareholder’s interests, being responsible for providing advice about the strategy, not for elaborating it; to ensure the integrity of financial statements, not to make those, having no reporting lines to the company’s CEO. They are expected to provide advisory and monitoring functions, on both strategy and the business model, based on their professional background. As earlier described by Hamdani and Kraakman (2007), they are supposed to interpret a two way role by monitoring the management team and by being advisers when called to business decision making.

The Sarbanes Oxley Act (2002) and the Financial Reporting Council (2003) lengthened the role of the non-executive members to other functions. They argued that besides the Board, non-executives should dominate on the audit and remuneration committees, where the conflicts of interests are most likely to occur.

Beasley (1996) studied the non-executives from a fraud perspective. The author tested the relation between the proportion of non-executive members on the Board with the risk of having fraud financial statements. The results suggest that the higher the number of non-executive directors on the board, the less is the likelihood of having fraud firms.

The next section will be focused on prior studies developed, analyzing the non-executive directors and their influence on distinct areas of a corporation.

In contrast with all the definitions and importance attributed to non-executive directors presented so far, Core *et al.* (1999) concluded in favor of no evidence that independent non-executive members contribute to a more effective board, in comparison with executive directors.

Some studies analyzed the relation between non-executive directors and their potential impact on the firm. Larcker and Tayan (2011) did not observe a clear relation between the non-executive directors and the compensation packages of the CEOs. In contrast, Nascimento (2009) by studying the Portuguese market, observed that the executive's compensation is not determined by the level of independence of the Board's members but by firm characteristics, specially by the firm's size. Regarding the role of non-executive directors, the author concludes that the results obtained are unclear, suggesting that this might be linked with the fact that non-executive members may not be necessarily independent. As a result, they don't have a strong monitoring role. Fernandes (2005), also by studying the Portuguese market concluded in favour of a significant relation between the non-executive members and the executive's compensation. The author states that the higher the number of non-executive members, the higher will remunerations be, providing empirical evidence between 2002 and 2004, a period when the average pay of non-executive members doubled. However, Fernandes (2005) suggests they do not seem to have a strong monitoring role due to high compensation and limitations in terms of labour market, which do not provide incentives for non-executive members to fully act on behalf of shareholder's interests. According to the author "*high compensation, together with a lack of labor market suggests that there are few incentives for non-executive directors to really act as guardians of shareholders interests*" (pp. 16). On the other hand, when firms perform successfully, outside directors may see their effort compensated by acquiring new directorships (Yermack, 2002).

A similar conclusion was made by other authors: Core *et al.* (1999) studied the CEO compensation and firm performance for 495 observations in the U.S. and concluded that the CEO compensation is higher when we can find a higher percentage of non-executive

directors on the Board or when these non-executive directors are appointed by the CEO. This relation was equally documented by Lambert *et al* (1993) and Boyd (1994), who suggested that when there is a higher proportion of non-executive directors on the Board, executive's compensation experiences a high association with firm performance, contrary to Finkelstein and Hambrick's (1989) results. The size component was also shown to be important, with larger firms demanding "*higher-quality managers with higher equilibrium wages*" (pp. 379). The authors concluded that the Board's and ownership structure had a significant impact on the CEO's compensation. Based on the studies just mentioned, it is plausible to state that there is no academic consensus on this issue.

In terms of mergers and acquisitions, Cotter *et al.* (1997) concluded that a higher number of non-executive directors may lead to better decisions when facing these kind of situations.

Cosh and Hughes (1995) called the attention for the importance that independent non-executive directors should have in restraining the compensation levels and in the alignment with shareholder's interests. However, they concluded that for the UK, non-executive directors have an "*insignificant or perverse effect*" (pp. 20) over the CEO compensation. Yermack (2002), by studying a sample of firms in *Fortune 500*, concluded that 5% of the outside directors' sample become, at a point in time, "grey" (pp. 23), by creating relationships with the firm's CEO challenging their ability to monitor their decisions. By acquiring this status, the non-executive directors may lose, at least, part of the objectivity arising from their relative distance to the Executive Board members. The author argues that the number of firms for which an outside director may work for has a negative relationship with the level of their independence. The larger the number of firms, the higher is the probability of an outside director to become grey. In order to avoid this situation, NACD (1996) suggests mandatory retirement ages and term limits for directors. As regards this "grey" status, other authors share this opinion by stating that the close relationship between the CEO and the non-executive directors (since one has hired the other) contributes for an ineffective level of compensation by the Board of Directors (Crystal, 1991). This close relationship, might lead to an ineffective Board in what concerns compensation plans.

In what relates to shareholder's and firm performance, interesting results were also achieved by a number of studies. As regards to shareholder's wealth, there is a controversy surrounding the causality relation between this and board independence. Prior empirical studies report different conclusions which contribute to a mixed and contradictory interpretation of the results. For instance, Masulis and Mobbs (2011), Rosenstein and Wyatt (1990) and Brickley *et al.* (1994) reported a positive correlation between outside directors and the shareholder's wealth while on the other hand, Bhagat and Black (2002) provided evidence that firms with a higher fraction of independent directors do not achieve a better performance. They argued that low-profitability firms exhibit an increasing number of independent directors as a way to respond to the business problems. Other authors find mixed or insignificant results regarding the effect that independent directors have on the performance or shareholder wealth (Yermack 1996; Klein 1998).

In summary, it is plausible to argue that the presence of non-executive directors have positive and negative potential consequences on a company's daily business, having the capacity (which may not always be used) to provide the firm with their knowledge, expertise and independence contributing to reduce agency costs and improve the firm's performance. Nonetheless, it is reasonable to contend that outsiders may also operate under an information disadvantage which can reduce their effectiveness.

#### **1.4. The independence question**

The independence question has been one of the most debated issues in the last decades. The question is: how to define independence? How to evaluate the independence levels of the company's directors?

In several countries the concept of independence is present in codes of principles or best practices while in others, this definition may be established under the country's law. In the Portuguese case, this definition is included on the CMVM recommendations (the last version concerns to 2013) as well as it is also included on the CSC (Código das Sociedades Comerciais, article 414º, nº 5).

Regardless the legal or regulatory system adopted in each country, this independence perspective is considered vital in order to have an effective advisory and monitoring capacity from the board members, including non-executive directors.

We may define independent directors as those who don't have any kind of relation with the firm for which they are working for (Baysinger and Butler 1985). This means that the independent member is not associated to any agent/interest capable of influencing his/her decision or monitoring role (CMVM, 2013). This requires that directors have not worked for the company in the past 3 years, do not own a substantial number of the firm's shares, is not related to any employee or any relevant shareholder, do not earn any remuneration from the company, among other specifics. In other words, we may state that only individual characteristics such as education, personal values, experience and personal background should influence the process of recruiting. Example of independence may also include having no past or present relation with major suppliers, customers or service providers, no family or friendship relations with any member of the Board or its family. This independence status is similarly evaluated through the level at which a director is free from having conflicts of interests with the firm, leading to an inability to act solely on behalf of the firm's interests (CMVM, 2013). This definition is likewise present on the Portuguese law (Art. 414º nº 5 CSC) which goes even further by limiting the participation on the firm's capital up to 2% and by mentioning the incapacity of being independent members in case the person has been re-elected by more than 2 mandates, on a continuous form or not. It is equally related with the director's capacity to oppose to the management, whenever it is necessary to (Larcker and Tayan, 2011). Regarding the specific case of the Remuneration Committee, according to Newman and Mozes (1999), it is only seen as independent if it excludes executive directors.

Nonetheless, besides this independent *status* it is also valuable to mention that independent directors should evidence some prestige, professional experience, reputation, good communication skills and a good network of contacts for communication purposes (Mallin 2003). Going deeper into this topic, some characteristics of the Remuneration Committees focusing distinct areas of a firm have been object of study reporting some interesting conclusions. For example, regarding the

relation between independent members and the executive's remuneration there are several and distinct opinions.

Mehran (1995) documented that firms with a higher number of independent board members used higher compensation schemes, presumably as a way to motivate managers. Knyazeva *et al.* (2011) by studying a sample of U.S. firms (S&P<sup>5</sup> 1500) reported clear evidence of a relation between the number of independent directors on the Board and the proportion of equity based compensation in CEO total pay.

Contrary, Daily *et al.* (1998), by studying 200 companies belonging to *Fortune 500*, observed no impact of the proportion of independent members of the Remuneration's Committee over CEO compensation. More recently, Zhu *et al.* (2009) documented that for Chinese listed firms, board independence does have a significant relationship over the executive's pay-performance relation. In fact, they found that the higher the number of independent members on the board, the more executive cash compensation is related with accounting and stock performance. Their results also suggest that independent members on the Remuneration Committee produce a good governance mechanism in order to set the optimal executive compensation and that the independent Board members work more effectively in setting the executive compensation term when there is a Compensation Committee able to provide useful help and information. Furthermore, by studying the Canadian market, Sapp (2007) concluded that there is a positive correlation between the number of independent directors on the Remuneration Committee and the CEO compensation. More recently, these conclusions were also confirmed by Chowdhury and Wang (2009), which documented a strong relation between the Compensation Committee independence and the CEO remuneration.

In terms of size and performance, Li (1994) based on 398 firms located in Japan, Western Europe and the United States documented a positive relation between these two variables and the number of non-executive directors on the board.

Knyazeva *et al.* (2011) evidenced a relation between the proportion of independent directors, firm size and the labour market supply. They argue that "*smaller firms have a larger portion of independent directors who are locally based, consistent with the intuition that while high visibility firms have the luxury of tapping a wider, national*

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<sup>5</sup> S&P stands for Standard & Poor's.



*director pool, less visible firms are constrained by the local supply of prospective directors*“(pp. 16). The authors went further and following subsequent research, concluded in favour of a positive and significant relation between independent directors and the firm’s operating performance, as well as on the firm’s value, with economically meaningful conclusions.

Hermalin and Weisbach (1998b) argue that board’s independence increases in response to the company’s poor performance. This means that during strong performance periods, there is an increase on the CEO bargaining power resulting in a decrease of board independence. In contrast, in periods characterized by poor performance and consequently, a decrease on the CEO bargaining power, the company’s top management decision maker (the CEO), is forced to accept the increase in the fraction of independent directors on the Board.

More recently, Fogel *et al.* (2014) calls for the importance and impact of powerful independent directors inside an organization, encouraging that firms with stronger independent board members exhibit economic and statistical higher valuations, elevating the shareholder’s wealth being more effective and disciplined when it comes to monitor CEOs. These results are achieved “*in part at least by preventing value-destroying decisions such as economically unsound merger bids and excessive free cash flow retention, by meaningfully linking CEO pay to firm performance, and by forcing out underperforming CEOs*” (pp. 19). Independent board members provided with information from the social network are more capable of questioning and challenging the CEO’s performance, leading the company to stronger results.

### **1.5. Compensation: determinants and impacts**

Agency theory has also been debated on the executive compensation scenario. As studied by Bebchuk and Fried (2003), the executive compensation has a two-way interpretation – if in one hand it can be seen as an instrument seeking to address the agency problem arising from the division between ownership and control, in the other hand, it can be perceived as a source of the agency problem itself. These interests can be partially aligned by making executive compensation dependent on firm’s performance (Murphy, 1999; Brunello *et al.* 2001). Following this perspective, Holmstrom (1979)

defends that the executive remuneration should ideally be grounded on other measures of performance which are as informative as possible.

When the governance structure is less effective, the company becomes weaker with higher agency problems. In this scenario, the CEO earns a greater compensation and the firm performs worse (Core *et al.*, 1999). An additional way of addressing the agency problem consists in having executives and shareholder's interests aligned by conceding stocks and stock options to the CEOs (Hall and Liebman, 1998). A different perception is derived from the role of independent non-executive directors which can have an active and determinant role, by monitoring and controlling the executive behaviour, by supervising remunerations and sanctions, being alert to performance problems and by exercising decision control (Roberts *et al.*, 2005).

The executive's compensation packages and the board's remuneration may also be interpreted as a corporate governance instrument, due to their control effect over managers. They may similarly be designed in order to develop an incentive to have managers and shareholder's interests aligned, making this an internal control tool towards managers (Menozzi *et al.*, 2011).

Compensation schemes may reveal a particular and important aspect in what refers to the attraction and/or maintenance of well and enabled directors (Silva, 2009), as well as to motivate the firm's executives to perform their duties in accordance to the shareholder's value maximization principle (Andersen and Bizjak, 2000). During the last years, the director's remuneration and their functions have been strongly debated in the society, linking this topic with the Agency theory. In fact, one of the goals of corporate governance is to address the agency problem, earlier formalized by Jensen and Meckling (1976). This problem relies on the fact that managers may engage on self-interested activities that conflict with shareholder's interests. One possible solution to address this issue may be providing managers a compensation that is aligned with their responsibility and functions inside a company. According to Larcker and Tayan (2011), the compensation packages should be designed in order to be "*sufficient in terms of their level and structure to attract, retain, and motivate qualified executives to create shareholder or stakeholder value*" (pp. 237) and must include a mix of short-term and long-term components, consistent with the firm's characteristics and strategy. However,

this task is not so linear and simple to determine being sometimes difficult to find the appropriate candidate as well as the necessary compensation to attract him/her to the company. This approach of establishing the ideal compensation packages may be translated into different measures which may not be well perceived by everyone. The authors observed that often the pay schemes are established based on a benchmarking analysis, comparing their company with others of similar size, industry and geography, as a way to maintain the competitiveness regarding this topic in the market.

In first place it should be discussed why compensation has been a controversial topic and has become the object of an international debate over the last years. According to Murphy (1999), there are three main reasons that have contributed for this widespread interest: the unquestionable rise in CEO remuneration (from 1970-1996 the compensation paid to the S&P 500 CEO has more than doubled); the wealth associated to the so called “*excesses of the 1980s*” (pp. 1) where the high pay-schemes were connected to the layoffs, corporate downsizing in between others; and finally, the “*bull market of the 1990s*” (pp. 1), where the CEO compensation was increasingly linked with the firm stock-price performance. The 80’s were characterized as a period of high inflation and rapid economic growth, with executive’s compensation following an increasing tendency. Over this period, there was a clear trend in what refers to the remunerations schemes. These started to flow from fixed salaries and annual bonuses towards a variable component aligned with long term firm performance and stock options, having some executives received (very) “*generous payouts*” (Larcker and Tayan, 2011, pp. 238).

According to some critics, this problem is not isolated or spontaneous, it is actually a systematic issue, which has been in place along the past years. In order to express briefly this idea, Bebchuk and Fried (2005) earlier expressed that “*the problems have not resulted from temporary mistakes or lapses of judgment that boards can be expected to correct on their own; rather they have stemmed from structural defects in the underlying governance structure that enable executives to exert considerable influence over their boards.*” (pp. 2).

During the last two decades, this subject has been under intense public criticism and after the corporate governance scandals that initiated in the beginning of century 21<sup>st</sup>

century, it was much intensified. It is currently perceived by the society that many boards have deliberated and accepted compensation plans that did not serve the shareholder's interests (Bebchuck and Fried, 2005). Nowadays, we can still observe a common disagreement about the origin of such problems and on how to address them.

Secondly, it should be defined what is remuneration about. The Remuneration Committee designs the compensation plans which are then approved by the independent directors of the full board. Usually, the executive's remuneration is defined as the fixed and variable cash compensation component, but it may also include other variables, such as stocks, stock options, pension benefits, bonuses, in between others. In Portugal and regarding the specific case of non-executive directors, their remuneration should be solely composed by a fixed element, following the CMVM and the IPCG (Instituto Português de Corporate Governance) recommendations, avoiding the variable component.

Taking into consideration Kaplan's approach (2012) referring to the CEO's remuneration, there are two identified ways of measuring compensation: the "*estimated or grant-date pay*" or the "*realized pay*". The first approach includes the "*salary, bonus, the value of restricted stock, and the estimated value of options issued that year*" while the second, includes the "*salary, bonus, the value of restricted stock, and the value of options issued that year*" (pp.1).

One of the most controversial topics regarding Corporate Governance relies on how should executive's compensation be designed and whether compensation should reflect a pay-performance relation or not. This point is particularly sensitive as it is highly associated with the neo-classic view where executive compensation was seen as the solution for the Agency Theory between investors and managers (Holmström, 1979), earlier mentioned in this work. Following this perspective, Acharya *et al.* (2014) stated that having executive's compensation correlated with firm's performance could possibly solve the exiting trade-off resulting from the necessity of having incentivized managers and the desire of preventing "*idiosyncratic risk*" (pp. 5).

Some studies focused on supporting or contradicting the earliest theory presented by Jensen and Murphy (1990a), where CEOs were paid like *bureaucrats*, having their compensation independent from the firm performance. Hall and Liebman (1998)

opposed this theory, by studying a sample of U.S. companies and including the impact of stock options on the compensation plans.

Acharya *et al.* (2014) conducted a model where firms could incentive managers by allowing them to choose a pay for performance (attributing a reward for their good performance) and applying a corporate governance strategy where they would be punished if they performed badly. In a hypothetical scenario where firms didn't have to compete with each other in order to attract the better managers, they could apply for an efficient combination of these two. However, due to the fact that managerial talent is considered scarce, this solution is not considered valid.

As earlier expressed by Larcker and Tayan (2011), if we tie the fact that annual bonus and performance plans are related to operating performance and that, stock options offer compensation when executives trade stocks "in the money", then it is plausible to affirm that, at some level, the relation pay-performance must exist.

Anderson and Bizjak (2000) confirmed this theory as their data shows performance and compensation associated to each other, with stock options being part of the compensation plans. According to their results, the higher the proportion of outside directors on the compensation committee, the lower the fixed-based pay, but the greater was the option based-pay translating into a higher pay to performance sensitivity and high levels of pay. This theory was also reinforced by Murphy (1985) and Kaplan (1994), who suggested that compensation schemes should focus on the firm performance allowing the firm to, at least in theory, design an adequate system motivated in aligning the interests between managers and shareholders. Some authors sustain that especially the variable component linked with performance would contribute for the alignment of interests, following the Agency Theory principles. However, based on past studies, there is no evidence of managerial compensation to be linked with performance (Hall and Liebman 1998; Bebchuk and Fried 2003). One possible explanation for this lack of relationship may be interrelated with the likelihood that firms do not take as their main financing source the financial markets, having prices not as an appropriate measure of firm performance (Fernandes, 2005).

Fernandes (2005) and Nascimento (2009) determined for a sample of Portuguese companies that there was no empirical evidence of a positive relation between

executives' remuneration and firm performance, in contrast to firm's size which strongly affects the compensation levels, as mentioned previously. This conclusion was also evidenced for a sample of Italian companies by Brunello *et al.* (2001), where remuneration was higher for bigger firms. In addition, Nascimento (2009) documented that the variable component of the executive's remuneration was the only one influenced by the firm performance.

A number of prior studies referring to the United Kingdom market have demonstrated that executive pay is much more sensitive and affected by the firm's size and changes in size, rather than measures of shareholder performance (Cosh 1975; Meeks and Whittington 1975; Main 1991; Conyon and Leech 1993; Main *et al.* 1994; Cosh and Hughes 1995).

By studying the Remuneration Committee, compensation and the firm performance, Silva (2009) refers that some studies point out the fact that independent Remuneration Committees are more capable of designing appropriate compensation schemes. In fact, the author concluded that the Committee's independence allows a better alignment of interests between the executive's compensation and the firm's performance, however, these two components by themselves, as also studied by Daily *et al.* (1998) and Newman and Mozes (1999), are not considerably affected by the Committee's independency.

Also Cosh and Hughes (1995) succeeding previous researches (Cosh (1975), Gregg *et al.* (1993), Conyon and Leech (1993), Main *et al.* (1994)), present evidence consistent with company's size influencing significantly executive pay, rather than other variables such as firm performance or earnings per share.

According to Yermack (2002) this pay-performance relation does exist, but only for the case of non-executive directors. Regarding other types of compensation such as opportunities to obtain other board seats, these do not appear to have a stronger impact, in contrary to rewards and economic remuneration.

More than linked to performance, Murphy (1999) suggested that the pay levels should be associated to measures of stock-based performance. This relation would be in alignment with the shareholder's interests but it would traduce manager's actions. As so, if goods actions were taken by the management team, we would possible observe a positive effect on stock returns.

Following previous studies, Core *et al.* (1999) expected that larger firms with larger and more sophisticated operations and, consequently, larger growth opportunities demand higher-quality managers, meaning that the quality component represents an increase in the final remuneration. The authors sustain that due to the strong power of the CEO in the Board of Directors, the Board is not capable of designing adequate compensation schemes as an attempt to maximize the shareholder's value. Actually, this opinion was previously documented by Hill and Phan (1991), who suggested that the power exercised by the CEO could be used to limit and weaken board control.

More recently, Acharya *et al.* (2014) reinforced this quality factor as an important asset owned by managers and to be considered by corporations arguing that when talent managers are a scarce resource, competition in order to attract these forces firms to pay higher compensation packages. Consequently, individual firm's incentives towards good corporate governance are reduced and better managers end up in firms with weaker governance, while in the other hand, better governed firms are directed by lower-quality managers. By studying a sample of U.S. firms the authors proved that there is an inverse relationship between the CEO's talent and the corporate governance, with better CEO's working in firms with weak corporate governance practices. This conclusion sustains prior researches which argue that the quality factor present on the management team forces firms to pay higher compensations. As so, these studies can be summarised by affirming that the competition towards the market for managerial talent is responsible for the poor governance and entrenchment in corporations.

Other authors concluded that the levels of remuneration are associated with the internal firm's characteristics, such as the board size and board compositions (Menozzi *et al.*, 2011), as well as the firm's size (Barontini and Bozzi, 2011).

## **1.6. The Remuneration Committee**

In order to have specialized human resources, with the required *know-how* and adequate competences, at least bigger and listed companies may distribute the functions and responsibilities over different Committees. This was an available option which was not mandatory until 1977 in the United States. Historically, the only Committee required by the U.S, Securities and Exchange Commission (SEC) and by the New York Stock

Exchange (NYSE) was the Audit Committee for all the publicly listed firms in 1977. With the Sarbanes-Oxley Act issued in 2002 coming up on United States, some additional Committees were demanded, including a Remuneration Committee, a Governance Committee and at last, a Nomination Committee. Furthermore, this Act specified that all the Committees mentioned previously, including the Audit Committee, should be entirely composed by independent members. Nowadays, the formation of the Remuneration Committee is not considered as a requirement for the publically listed firms in Portugal and therefore, Portugal may be considered as a good example to investigate in what refers to this issue.

Some authors (Anderson and Bizjak, 2000) argue that having specialized Committees inside corporations allow directors to focus on particular business issues. Arguably, the Remuneration Committee is considered one of the most important which can be found inside a corporation, as it benefits from the capacity to attract and retain top managers through the adequate incentives, in order to operate in accordance with the shareholder's interests.

In what refers to the specific case of the Remuneration Committee, its role is to design adequate compensation schemes, as a way to ensure that executive members are focused on achieving the long terms business goals, in alignment with shareholders' interests. Apart from this, the committee may also elaborate recommendations regarding this topic to propose to the Board which may or may not decide to adopt these. For those firms which do not have a Remuneration Committee, this type of decisions should be taken by the Board of Directors.

Regarding the Portuguese case in specific, the director's remuneration should be defined by the Board or by the responsible committee, taking in consideration the functions developed and the economic situation in which the firm is inserted, possibly composed by a fixed and/or variable component (Art. 399º, nº 1 of CSC).

Typically, we can identify members of the Board present on this Committee, having the belief that its independency principle is ensured. This topic is considered essential for the correct functioning of the Committee, aligning therefore the interests with shareholders.



In terms of the main role, the Remuneration Committee may have a dual role in the company: on one hand it can be perceived as an internal mechanism while on the other, it may be considered particularly important in preserving the shareholder's interests (Murphy 1999; Anderson and Bizjak 2000; Hermalin and Weisbach 2003; Silva 2009). Apart from the remuneration packages, this Committee should assess the executive's performance, elaborate reports to the Board, be present in particular meetings, among other recommendations elaborated by the CMVM, in the Portuguese case. For this reason, it is important that Compensation Committees are composed by independent directors, in order to ensure the effectiveness of their functions.

Regarding this topic, there has been an emergent discussion also due to the latest scandals and collapses observed worldwide<sup>6</sup>, arguably connected with the lack of/improper structure of good corporate governance systems. Following this trend, there has been a growing literature suggesting an ineffective job from the Board of Directors, in the absence of an adequate level of effective monitoring.

In order to avoid these kinds of scandals, some authors/institutions have developed recommendations on the topic. For example, in Portugal the CMVM has introduced since 1999 several recommendations on the area, such as the one stating that listed companies must reveal the executive's remuneration on their Annual Government Reports. Regarding the independence issue on the Remuneration Committee, CMVM advises that in order to ensure that managers and shareholder's interests are aligned as much as possible, the Remuneration Committee should be solely composed by independent members, as also suggested by NACD. Furthermore, it recommends that the Board of Directors should have at least 25% of its members considered as independent, so that the non-executive directors may better develop their function of supervision and monitoring of the other members of the board.<sup>7</sup>

In fact, Williamson (1985) argues that in the case where an independent Remuneration Committee is absent, the company's directors will have the possibility and perhaps the motivation to write and approve the remuneration contracts without any supervising constraints, illustrating why the Remuneration Committee is so important. Without this

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<sup>6</sup> For example, Enron, Tyco and Bernard Madoff, in the United States, British Rail in the United Kingdom, Parmalat in Italy, Vodafone Mannesmann in Germany and Vivendi Universal in France

<sup>7</sup> These recommendations will be fully described on section 1.9.3.

body, the Board of Directors would be able to set the levels of compensation as desired, hypothetically not following the firm's value maximization principle.

## **1.7. The Ownership Structure**

In order to understand and to evaluate the impact and the effectiveness of Corporate Governance measures inside a corporation, it should be taken into consideration the firm's ownership structure.

In a first level of analysis, it is important to understand the structure of concentration/dispersion of the firm's capital as this might have a direct effect on the firm's executive functions. Thus, the director's monitoring role may be compromised.

According to Farinha and Costa (2009), the dispersion or in contrast, the concentration of the firm's capital may produce contradictory effects in terms of the firm's directors behaviour and their monitoring role. As earlier documented by Becht (1999), a concentrated ownership structure has the consequence of attributing to the majority shareholders voting power and incentives. Thereby, they may face the appropriate incentives and power to discipline managers. However, if in one hand we have an attractive and powerful disciplining tool due to a higher concentration level, we have also a potential conflict of interests arising between the majority and the minority shareholders, originating an agency problem.

Nevertheless, there are alternative ways of encouraging managers to follow the firm's value maximization principle, providing the alignment of interests. Following Jensen and Meckling's (1976) perspective, in corporations characterized by a high dispersion of capital with a various shareholders, normally firms are directed by a manager or by a management team composed by several individuals. In these cases, managers with no ownership over the company may find it attractive to have a small percentage of the firm's capital, contributing to the alignment of interests. However, it should be considered that managers with ownership may become a powerful entity inside a company, which can lead to the so called *entrenchment problem* (Farinha and Costa, 2009). If in one hand this ownership structure may be considered an attractive corporate governance mechanism, on the other hand, it can lead to serious problems in the case of

incompetent or even self-interested managers. In these situations, if managers have a significant participation in the firm's equity capital, it may be extremely hard to remove them from the management team.

In summary, it is important to know the ownership structure of the company as well as the manager's participation in order to find the adequate solutions for each individual case.

It is worth to mention that according to these last authors, by studying a sample of Portuguese listed firms, they observed a significant influence of the firm's ownership structure over the way that monitoring activities were exercised over managers. The authors suggest that for a certain level of concentration, the monitoring functions attributed to managers may be favoured, while on the other side, the existing *blockholders*<sup>8</sup> may contribute by influencing the way that monitoring is exercised by those. Even though it may seem that the majority shareholders may have a stronger influencing power over the management, the institutional *blockholders* tend to have a stronger monitoring performance. Following Edman's (2013) argument, *blockholders* may intensify the agency problems, rather than solve them as their presence may corrode managerial intervention or may lower liquidity. If *blockholders* may solve the agency problem present between managers and investors, in contrast, they exacerbate the conflicts of interests in between majority shareholders and minority shareholders. Furthermore, it is also considered the possibility of *blockholders* to have inadequate individual objectives which overlap the firm's value maximization principle.

## **1.8. The Corporate Governance Models**

The Corporate Governance mechanisms of decision-making and supervision, may vary from country to country, from organization to organization also due to the legal and institutional environment inside a company (Silva *et al.*, 2006). As a result, it is plausible to sustain that the Corporate Governance models applied, differ influenced by their historical, social, cultural and economic path of the country. The existing models diverge from each other in what refers to the relative strength of influence exercised by the stakeholders and by the influence they produce over management.

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<sup>8</sup> A *blockholder* is an expression used to define large shareholders.

Essentially, we can find on the White Book (Silva *et al.*, 2006) two models of Corporate Governance: the Anglo-Saxon Model and the Continental Model. The first model equally described as an external control system or as a control system by the market, is often found in countries such as the United States of America, United Kingdom as well as in other Anglo-Saxon countries. The Continental system is linked to an internal control system or a system based on relationships and can be found in Continental Europe and Japan.

Briefly describing the models just mentioned, the Anglo-Saxon Model is characterised by a dispersed ownership, in a liquid and vast capital market which is consequently, connected with the Agency Theory, due to the observed difficulty in aligning managers and shareholder's interests. For this reason, it is considered vital to protect the minority shareholders against the company's managers, evidencing the importance of the control mechanisms inside a corporation. One strong feature associated to this model is the idea that efficient markets exist, having therefore a controlling action over managers, meaning that if it became public that the management team were acting solely according to their own interests, they will be considered and treated as incompetent and as despising the shareholder's interests and the value maximization principle. The practical result would be a possible takeover and a substitution of the firm's management team by another, more qualified one. Two additionally characteristics of the Anglo-Saxon model are related with manager's compensation which are strongly defined in terms of a variable basis aiming at the alignment of interests and a thorough information disclosure to the capital markets. Finally, it is relevant to mention the structure of the Board of Directors followed under this system. Usually, we are able to distinguish the internal directors (also denominated as *insiders*) which are executives and have past experience in the corporation and the external directors (often called *outsiders*), commonly non-executive directors with no internal relationships with the firm.

The Continental Model is usually associated to a more concentrated ownership, where majority shareholders possess significant positions inside the corporation (e.g. families). Thereby, once the company is controlled internally, it is possible to face some particular agency problems arising from conflicts of interest between the majority and the minority shareholders. Takeovers are not so frequent and it is common for corporations to exhibit anti-takeover mechanisms (Silva *et al.*, 2006). Contrary to the Anglo-Saxon

Model, this system exhibits a strong presence of a fixed component on the remuneration schemes and therefore, the alignment of interests between the shareholder's and manager's interests is considered to have a reduced importance.

Besides these two models, Corporate Governance models also distinguish the structure of the Board of Directors. As so, it is possible to identify two distinct models: the dualist, found in countries like Austria, Germany and Switzerland and, the monist model identified in countries like Portugal.

The Monist Model, or *Tier 1*, is characterized by the possibility of having or not the Executive Board incorporated inside the Board of Directors and therefore, in this case, the company would be led by one party only. Apart from that, the positions of CEO and Chairman may be assumed by distinct individuals.

In the Dualist Model, also called *Tier 2*, it is possible to identify an intermediary structure between the General Meeting and the Executive Directors, having two parties the responsibility of running the company. The executive Board stands outside the Supervisory Board while the CEO and the Chairman are assumed by different people.

## **1.9. The Portuguese Market**

### **1.9.1. Historical Context**

The Portuguese market for Corporate Governance which has been growing and developing in the last decades, is the aim of this work.

In Portugal, some of the Corporate Governance principles are included on the legal code - "Código das Sociedades Comerciais" (CSC). Nevertheless, the transposition to the market is done through the CMVM. In this case, all the entities issuing shares that are willing to be traded on a regulated market, are subject to the duty of annually reporting the degree of compliance regarding the *Code of Corporate Governance* (Código de Governo das Sociedades). This code consists mainly on recommendations elaborated by the CMVM and follows the similar codes and practices observed over Europe.

Succeeding the Directive 2006/46/CE of the European Parliament and Council, from 14 June 2006, the recommendations contained in the codes of good corporate governance

are considered the basis for the annual reports on corporate governance, for the firms listed in regulated markets. As regards the degree of compliance, under the European Law, the corporate governance codes do not contain a public audit. In Portugal, CMVM has been taking care of examining the content of the corporate governance reports.

In 1999, CMVM released the first set of 13 recommendations on this subject aimed at “*Companies issuing shares admitted to trading on a regulated market and institutional investors*”. On the following years, it has released several supplementary documents addressing the improvement and addition of relevant recommendations (2001, 2003, 2005, 2007 and 2010) being that, in 2005 it mostly highlighted the Principles on Corporate Governance adopted by the OECD in 2004.

Facing the clear necessity of data and measures on the topic and, following the important steps that were being taken all over Europe, in 2004 the IPCG was created, with the clear mission to issue the so called “White Book”, on Corporate Governance in Portugal. Later published in 2006, the “White Book” was developed with the intention of becoming a major code of Corporate Governance, primarily addressed to the listed firms. This initiative from IPCG was focused on contributing actively for the transparency, accuracy and modernization of the Portuguese Capital market. As a result, we can affirm that besides these recommendations there are a variety of measures and practices regarding Corporate Governance in Portugal, on both legal and regulatory standards.

It is equally important to mention that based on the last economic and financial developments, the capital markets progress, the strong internationalization observed worldwide and due to the serious impact of information and communication technologies development, the Portuguese system relies not only on solid recommendations but also on legal frameworks (Silva *et al.* 2006).

Currently, we can identify two main documents on which Corporate Governance is based on: the CMVM recommendations and the legal code – “Código das Sociedades Comerciais”. The CMVM recommendations have started earlier in 1999 as mentioned previously and have been constantly adapting and evolving with the new concepts towards the society demands. Along the years, the need for publishing the degree of compliance with the recommendations has been adopted and stronger requirements

were made, aiming to ensure that these were as timeless as possible and in accordance with the national and international concerns, as well as with the market and investors requests (Nogueira, 2011). Regarding the CSC, it has mainly focused the aspect of the director's independence *status* of the listed firms, as mentioned by article 414º, nº 5 of CSC.

### **1.9.2. Corporate Governance in the Portuguese Market**

The Board structure found in Portugal can be considered as very different from the ones observed in the United States of America but, closer to the board structures found in most of the European countries.

The majority of the Portuguese Boards are organized in a single-tier structure, mostly in non-financial and reduced size corporations, even though the legislation contemplates both solutions. In this management structure it is possible to observe a division between the management and the strategic decisions which in practice, can be translated in a structure where the Executive Commission is part of the Board of Directors. As part of the single-tier system, we are able to identify the CEO, the executive directors and also non-executive directors in the same body without a Supervisory Board. The non-executive's prescribed role is to protect the shareholder's interests, contributing to fill the informational gap existing between shareholders and managers (Fernandes, 2005).

### **1.9.3. The Recommendations on Corporate Governance**

As previously mentioned, CMVM is one of the entities in Portugal which is responsible for developing measures and recommendations on good corporate governance practices. Thereby, on this next chapter we will mention the main and most important recommendations made to the Portuguese listed firms, according to their importance for the aim of this study. It is imperative to emphasize the fact that even though these recommendations are addressed to listed firms these are usually seen as being susceptible of adoption also by non-listed firms.

According to the last report issued by CMVM (2013), the recommendations can be categorized into six distinct groups: voting and control of the company; supervision, management and supervisory; remunerations; auditing; conflicts of interests and related party transactions.

One of the measures that must be highlighted concerns to non-executive members. According to CMVM, the Board of Directors must include an effective number of non-executive members which guarantees that they can perform their role of monitoring, supervision and evaluation of the other Board members (recommendation II.1.2.1.). Furthermore, out of these non-executives, the company should ensure an adequate number of independent members (recommendation II.1.2.2.), taking into consideration a number of specific aspects, such as the corporate governance model adopted, its dimension, the ownership structure and the associated *free float*.

After analyzing our sample of 34 listed firms, our findings report that around 78% of the corporations studied accomplished with recommendation II.1.2.1. while only 30% followed recommendation II.1.2.2. Succeeding the report published by *Universidade Católica Portuguesa* (2013)<sup>9</sup>, 85.7% of all the listed companies in Portugal complied with recommendation II.1.2.1. and 38.1% with recommendation II.1.2.2, in 2012. The rate of compliance with this last recommendation reveals a low percentage which is even worse when compared with the statistics from 2011 and 2010 respectively: 40.5% and 47.6%.

One of the most important recommendations relies on this topic – the independence of all the members that compose the Remuneration Committee (recommendation II.5.2.). Along our study we found evidence that out of the 34 firms analyzed 25 had a Remuneration Committee solely composed by independent members, representing around 74% of the corporations, while the report elaborated by *Universidade Católica* reports a percentage of 71.1% considering all the listed firms in Portugal. In addition, the CMVM strongly recommends that the remunerations of the Board and Supervisory Board members are published. This recommendation has a legal basis and it is expressed on the Law nº 28/2009 article 2, of 19th June 2013.

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<sup>9</sup> “Relatório Católica Lisbon/AEM – Governo das Sociedades em Portugal em 2012”



Concerning to the specific case on non-executive directors, it is recommended by CMVM that their remuneration should be solely based on a fixed component being that any variable component should be based on the firm performance or value. This recommendation, as earlier described, was also enunciated by the IPCG.

Besides these two specific recommendations for which a particular importance was attributed given the aim of this study, also the remaining recommendations were analyzed. As so, it is possible to conclude that for the 34 corporations studied, around 76% of the recommendations were “adopted”, 10% were considered as “not applicable”, 14% as “not adopted” and at last, 1% as “partially adopted”.

Targeting to contribute to an increase on the percentage of compliance with its recommendations, CMVM adopted the principle of “complying or explaining” for the listed firms on the Portuguese stock market, a concept originated in Great Britain and currently applied over Europe. This principle relies on the obligation for the listed firms to inform CMVM about the recommendations being followed (according to the principle of “*complying*”), those not followed and the respective justification (according to the principle of “*explaining*”). This means that corporations must try to adopt the recommendations proposed as much as possible, as long as these are compatible with the firm’s objectives and characteristics. In addition, they should also report the recommendations not implemented with the necessary justifications.

## 2. Methodology, Data collection and descriptive statistics

According to the European Transparency Directive, all the listed companies on the European regulated markets of *NYSE Euronext* and *NYSE Alternext* have the obligation to provide transparent information to the community and to investors, as well as the commitment to disclose the full information that may impact the securities market.

In addition, the Portuguese stock market regulator (CMVM), through several recommendations which it has been introducing since 1999 obliges firms to disclose information such as the Annual Reports and on the Corporate Governance Reports. As a result, in order to ensure the credibility and reliability of the data collected, all the necessary information for this cross-sectional analysis was collected from the firm's Financial Reports, Corporate Governance Reports, CMVM databases, among other sources, for a sample of Portuguese listed firms on the *PSI Geral*, for the year 2012.

The study was elaborated based on 34 observations, corresponding to 34 different companies listed in the Portuguese stock market – *PSI geral*, for one year, excluding corporations from the banking sector. On appendix 1 it can be found a list with all the companies considered for this research (table 3). The original sample included 40 companies however, due to the fact that during the year of 2012, 6 didn't present non-executive members, these were excluded for the purpose of this study<sup>10</sup>. Distinct data was collected in order to perform this study, both on corporate governance and firm's results.

A Board can be composed by executive and non-executive directors. Since our study will focus the non-executive's topic, information regarding corporate governance concentrated mostly this specific aspect. The information collected also included data from the accounting and operational results which are able to produce influence over the non-executive's remuneration schemes.

In order to develop the proposed study, the methodology used was based on the *Ordinary Least Squares* (OLS). The regressions reported in section 3 include a set of variables which were tested as we believe that these might be able to have an impact on non-executive's remuneration. On the next section we present a brief explanation of the

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<sup>10</sup> The six companies were: Sport Lisboa e Benfica, Compta, CTT, EDP, Estoril Sol and Teixeira Duarte.

independent and dependent variables used along this study as well as its calculation method/source of data, finalizing with the descriptive statistics.

## 2.1. Independent variables

Focusing on analysing which factors contribute for the non-executive's remuneration, this study will give an emphasis to the level of independence of the members present on the Remuneration Committee, as well as to additional firm-related variables. On table 2, it is possible to observe the independent variables' definition, its calculation as well as the expected outcome. The main studies performed so far on this area refer to the executive's remuneration and therefore, some of the expected outcomes may be based on these studies, even though now we are trying to drive a different and mostly exploratory study relying on the non-executive's directors. In fact, this lack of previous evidence is one of the main reasons that led us to develop this work.

We will begin our study by defining the model presented below where we can observe some of the main independent variables.

$$\begin{aligned} \text{Log}(\text{Pay}_i) = & \beta_1 + \beta_2 \text{Log}(\text{Returns}_i) + \beta_3 \log(\text{Assets}_i) + \beta_4 \text{Independent}_i \\ & + \text{Control Variables}_i + \mu_i \end{aligned}$$

**Equation 1:** Initial regression with the independent variables

According to the executive's compensation literature (Murphy 1985; Jensen and Murphy 1990a; Kaplan 1994; Anderson and Bizjak 2000) a direct relationship between the firm performance and the directors' remuneration must be encouraged as a way to reduce the agency problems and in order to contribute for the shareholder value maximization principle. On the non-executive's literature, outside directors are seen as vital for the resolution of the agency problems between managers and shareholders (Fama and Jensen, 1983) likewise, they are primarily concerned with issues like the long term shareholder's interest protection against short term self-interested executives (Mace 1971,; Long *et al.* 2005). Nonetheless, conclusions are still scarce regarding the

impact between pay and performance, specifically for the case of the non-executive directors. Core and Guay (2003) reported positive evidence between these, if options are used as a substitute for cash compensation. Contrary, Fernandes (2005) and Nascimento (2009) concluded for a weak pay-performance relationship. Aiming to understand deeply the impact of this variable on the compensation of the non-executive's directors, the first factor to take in consideration for this research is the firm performance. Even though there isn't a single ideal measure of performance, two alternative variables will be considered: the average annual stock return variation (Kaplan 1994; Fernandes 2005; Nascimento 2009; Silva 2009) and the *ROCE* (Return on Capital Employed). The variable stock return ("*Returns*") was included as it can be perceived as a *proxy* of the firm's performance. For this purpose, we have collected information regarding the opening and closing values of the daily trading sessions along the year 2012 and the average annual stock return was calculated. This variable will be introduced with a logarithm ( $\text{Log}(\text{Returns}_i)$ ) as a way to control for the firm's performance. Since the non-executive's main role is to monitor managers, independently from the firm's performance, no relevant relation is expected to be found between these. In fact, the executive's main function is to run the company towards good results. As so, it could be predictable that a positive relation could occur between these. In the specific case of the non-executive's remuneration, their monitoring role should not be affected by the firm performance, as these are two separate areas, led by different agents.

Nonetheless, this analysis may be distant from the reality. In fact, some studies reckon that 75% of the market's movements (market capitalization) are not correlated to the company itself. Therefore, as this first analysis could be affected by the financial crisis having good and bad firms being affected, we will adopt a second perspective by studying the *ROCE*. This variable was calculated by dividing the Earnings Before Interests and Taxes (EBIT) by the sum of equity and net debt. For the two variables just described, we are not expecting a positive relationship between non-executive's compensation and performance. If this happens, it could mean that non-executives could have a closer relationship to the shareholders and therefore, benefitting from the positive performance of the company and thus possibly not fulfilling their monitoring role with sufficient independence.

One of the most common empirical findings in the literature on directors' remuneration was the strong and positive relation between the executive's compensation and the company's size. In fact, this conclusion was earlier made by Baker *et al.*, (1988), Fernandes (2005) and Nascimento (2009), in between other authors mentioned on table 2. In order to have a complete understanding, the variable denominated "Assets" was included on the study representing a *proxy* of the firm's size through the use of total assets along the year (Krivogorsky, 2006; Nascimento, 2009; Farinha and Costa, 2009). As an attempt to control for the firm's size, we considered the Log ( $Assets_i$ ) as previously tested by Nogueira (2011). By using this variable, a positive correlation is predicted with the non-executive's compensation, related with the fact that bigger firms are typically more complex and, in principle, should demand not just higher-quality managers but also non-executive directors with stronger capacities of monitoring and therefore, with superior compensation.

Later along this work, for robustness checking the variable "Assets" will be substituted by the "Sales", which will be equally used as a *proxy* of the firm's size and from where the similar results are expected (Brunello *et. al* 2001; Fernandes 2005; Nascimento 2009). Accordingly, we should expect that the larger the firm, the higher will be the non-executive's compensation.

In addition, companies were categorized according to their size, following past studies from Conyon and Murphy (2000), Fernandes (2005) and Nascimento (2009). This distinction arises from the problem earlier noted by Rosen (1992) and Holmström (1999) of how can we compare incentive schemes earned by top managers (more specifically, by the CEOs) from companies of dramatically different sizes? This question was also addressed by Baker and Hall (2004) who tried to incorporate the firm's size in their model. For this study we followed the approach previously used by Fernandes (2005) and Nascimento (2009) by distinguish firms according to their size, nevertheless by using a different measure. Companies were classified into "small", "medium" and "large" according to their assets being that "large" firms retain the top 20% while "small" firms the bottom 20%. Corporations which fall in between the percentiles of 20% and 80% of the total assets were considered to be "medium" size.

Besides the above mentioned variables, it is imperative to study the number of independent members of the Remuneration Committee. Daily *et al.* (1998), Anderson and Bizjak (2000) and Knyazeva (2011) previously noted that a relationship between the board independence and the CEO based pay is not statistically significant. Aiming to retain the effect of the Remuneration Committee composition on the non-executive's compensation, we analysed the number of members on the Remuneration Committee as well as their independency *status*, or lack of it. This characteristic may have a direct impact on the company's compensation scheme in general and, on the non-executive's compensation in particular. The proportion of independent members on the Remuneration Committee was captured by the variable "*Independent*", studied for the year 2012, for each company. As the Remuneration Committee includes a higher proportion of independent members, it is predicted that they would try to attract more qualified and experienced non-executive directors. Consequently, they will be available to expand the remunerations paid which can be translated into a positive impact over the non-executive's total remuneration. In addition, as the proportion of independent members increases on the Remuneration Committee, it could be expected that the number of firms paying exclusively a fixed remuneration (as advised by the CMVM recommendations) would increase. This variable will have an additional role of understanding whether the CMVM recommendations were followed or not.

In order to complement the research, two *dummy* variables were included as an attempt to capture unexplained variations across firms acting in different industries – "*Multinational*" and "*Industry*". The *dummy* variable "*Multinational*" will assume the value of 1 if the firm belongs to a multinational group, or it will assume the value of zero, if not. In case a firm belongs to a multinational group, it could be expected that they would like to attract the better non-executive's directors, with stronger competences and highly qualified. As a consequence, it could be anticipated a positive correlation between these two variables.

Looking forward to understand if the sectorial specificities can also have impact on remuneration, information regarding the type of industry was considered and can be seen on Appendix 1 (table 10).

Following the approach previously used by Conyon and Murphy (2000), Fernandes (2005) and Nogueira (2011), firms were classified according to 6 sectorial groups (Construction, Industrial, Media/Communication, Sports, Utilities and Others) by using 5 *dummies*. Even though this methodology was used in previous researches focusing the executive's case, regarding our specific study the expected sign is ambiguous.

As an attempt to capture the effect of the capital structure on the non-executive's compensation, we also included the variable "*Freefloat*". It will express the percentage of capital which is considered as *freefloat*<sup>11</sup> and it is expected to produce a negative effect over the remuneration component. As earlier suggested by Jensen and Meckling (1976), the concentration of the firm's capital may induce to contradictory effects in what refers to the non-executive's main function - Monitor the management and consequently, on their remuneration. However, we believe that with a more concentrated ownership structure (consequently with a lower percentage of *freefloat*), there will be already a good monitoring function performed by managers meaning that the non-executive's scrutiny will not be so important thus, having the effect of lowering their remuneration. In other words, a more concentrated ownership might bring less importance attached to the external monitoring and therefore, a negative impact on the non-executive's remuneration is expected. A larger float may have a positive impact on the non-executive's remuneration policy.

The CMVM recommendations on Corporate Governance play an important role, especially on the listed firms. As so, information regarding the recommendations and its degree of compliance was collected. The recommendations which were "partially adopted" were considered as "not adopted" and, for the aim of this study, were considered exclusively the "adopted" recommendations. As so, the variable "*Recommendations*" incorporated the proportion of adopted over the total n° of recommendations. The expected outcome is negative as the higher is the proportion of adopted recommendations, the lower is the importance of the monitoring role developed by the non-executive directors on the Board, meaning a lower total remuneration.

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<sup>11</sup> *Freefloat* refers to the share capital that is admitted to trading on a regulated market, which is currently in circulation. In other words, it can be described as the proportion of share capital (out of the total n° of shares) which is willing to be traded on the secondary market.

To finalize this section, table 12 reports the correlation between the variables used along this study, excluding the *dummy* ones. As so, from the matrix we are able to conclude that the non-executive's total remuneration seems to have a stronger correlation with two variables, which was already expected: the firm's size (illustrated through the firm's assets) and with the degree of compliance regarding the CMVM recommendations. The same appears to happen with the firm's *freefloat* and, surprisingly, with the alternative variable used as a *proxy* of the firm's performance – ROCE.

## 2.2. Dependent Variables

Following Kaplan (1994), Brunello *et al.* (2001), Stammerjohan (2004), Fernandes (2005) and Nascimento (2009) approaches<sup>12</sup>, we will consider as the dependent variable the Non-executives annual remuneration *per capita*, composed by the fixed and variable income, represented by *Log (Pay<sub>i</sub>)*. The reason for the *log* of this variable is to mitigate the differences in non-executive's compensation across firms and therefore, contribute to reduce the heteroskedasticity. Even though it contrasts with the CMVM recommendations, the fact is that along the 34 corporations studied, 23.5% of those preferred to include a variable component on the non-executive's remuneration. As a result, this variable must be included in order to better determine the results of this study. Stock options or other kind of benefits were not included as part of the variable compensation. This information does not require a public disclosure and therefore, it was not considered in the annual compensation figure.

For this variable, the total remuneration of all the members was considered and consequently, the remuneration *per capita* was calculated.

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<sup>12</sup> The researches performed by these authors didn't focus on the non-executive's remuneration specifically, but on CEO's or executive compensation schemes. Fernandes (2005) when studying the Board compensation analysed the specific case of the non-executive remuneration. Nonetheless, the approach of using the total remuneration *per capita* calculated through in logarithm terms follows their researches, as it seems to be an adequate perspective for our study.



### 2.3. Descriptive statistics

The next section will describe the descriptive data on financial and governance characteristics, for the 34 firms listed on the Portuguese stock market, studied along this work. By studying the sample of companies (generally described in table 3), we were able to obtain the following results, which can be found at table 1.

The majority of the listed companies present in the Lisbon stock market are considered to be small-medium size<sup>13</sup>. Representing 73.5% of the corporations, there are the small firms for which the characterization was based on the assets registered in the year 2012. The remaining 26.5% are distributed between medium and larger firms, as it is shown on table 4 (Panel A). As an attempt to characterize firms by using a different measure, these were also distributed according to the sales verified in 2012. As so, the conclusions are particularly similar with 82.4% of the corporations being small size, having the remaining 17.6% been distributed between medium and large size (table 4–panel B). Thereby, based on the sample being used, it is plausible to conclude that the majority of the listed firms on the Portuguese stock market (*PSI Geral*) are considered to be small size.

According to our descriptive statistics, typically a Board is composed by approximately 4 executive directors (represented by “Exec”), where the non-executive members (“NonExec”) hold around 55% of the Board seats. Looking closer into the data represented on table 5, out of the 9 (8.7 members) members which on average constitute the Board, around 2 (2.2) are considered to be non-executive independent (“NE\_ind”), illustrating that the majority of the firms did accomplished with the recommendation II.1.2.2 proposed by the CMVM<sup>14</sup>. Recommendation II.1.2.1<sup>15</sup> was also taken in consideration along this study presenting a result of 91% of accomplishment (table 3 and table 6).

Table 5 summarizes how do Board size varies across companies. Usually larger firms evidence a larger board, in both positions: executive and non-executive, as earlier

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<sup>13</sup> This conclusion holds analysing both Assets and Sales as the characteristic variable, for each firm, for 2012.

<sup>14</sup> Recommendation II.1.2.2. mentions that the non-executive members present on a firm’s board should include 25% of independent members.

<sup>15</sup> Recommendation II.1.2.1. refers to the number of non-executive directors that must ensure an effective capacity of supervision.

illustrated by Fernandes (2005)<sup>16</sup>. Our results sustain the previous ones, with the Board size increasing with the firm's dimension. This conclusion holds when we distinguish the firm's size based both on their assets and sales though it was interesting to observe that the number of executive members is higher for smaller firms, when compared to medium-sized corporations, using either assets or sales as a measure of size.

Similarly, the Board structure presents distinct characteristics along our sample. There were six companies which were excluded from our initial model as their Board composed solely by executive directors (representing 15% of an initial sample composed by 40 companies). With the remaining 34 corporations that constitute our sample, 13 had zero non-executive members considered independent (representing 38%). Regarding this specific topic, it is interesting to mention that three companies had their Board composed of at least, 80% of non-executive directors<sup>17</sup>, while 22 companies, representing 65% of the entire sample, had their Board composed of between 50% and 79% of non-executive members (table 7).

The maximum number registered for executive directors inside a Board was 7 members, while the maximum weight that non-executives represented on a Board was 87.5%.

In addition to the table already presented earlier, table 8 reports the composition of the Remuneration Committee. For the year 2012, 5 corporations didn't had any independent member, including the firm *Sporting Clube de Portugal*, which didn't specified this information<sup>18</sup>. If we exclude this corporation from our sample, we can affirm that on average, firms have 3 members composing the Remuneration Committee, independently from their size, from which 86% are considered to be independent. According to the data collected, the Compensation Committee size ranges from zero to four members, being that the bigger the firm, the higher is the proportion of independent members composing the Remuneration Committee (table 8 – Panel B). The majority of our Committees, around 85%, evidence a size up to three members.

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<sup>16</sup> Fernandes (2005) characterized firm's size according to their market capitalization.

<sup>17</sup> These firms were Impresa, Media Capital and REN.

<sup>18</sup> *Sporting Clube de Portugal* (SCP) didn't specify the total number of members composing the Remuneration Committee as well as the number of independent members. The information available mentioned that the Remuneration Committee was solely composed by "shareholders" however, further information was not available. Even though this company affirmed to have accomplished with the CMVM recommendation number II.5.2. (the members from the Remuneration Committee must be independent from the Board), since the members are shareholders, they will be considered as non-independent for the purpose of this study.

For the remuneration analysis, it was considered solely the fixed and variable annual compensation from the non-executive members, expressed in euros. Out of the 34 firms composing the sample, 8 paid a variable component to the non-executive directors and 26 had exclusively a fixed pay, representing around 76.5% of the sample (table 3). As regards to the total remuneration packages paid per capita during 2012, the average amount spent per non-executive director was 81,885.72 euros, with larger firms expressing a higher total compensation when compared to medium/smaller firms (table 9 – panel C). This conclusion is also related with the fact that larger firms evidence a larger number of non-executive directors on their Board. On average, larger firms have around four times more non-executive members on their Board and the total remuneration of larger firms is around seven times more when compared to smaller firms. This evidence is also present when comparing larger and medium sized firms. Bigger firms have on average around 1.8 more non-executive members with the total compensation being around 2.9 higher. Though, in terms of total remuneration *per capita*, the larger firms appear to have higher compensations when compared to the remaining ones, if the size characterization is done on the basis of assets. Nevertheless, due the fact that only one firm was considered as “large” (based on its assets), the results might not be truly representative. In an attempt to be more conclusive, the size effect over non-executive’s pay was also considered by characterising firms according to their sales (Panel D). On this field, medium sized firms evidenced a higher compensation *per capita*, contradicting the previous conclusion. Interestingly, the smaller firms on average experienced a higher compensation *per capita* when directly compared to bigger firms. Table 9 (Panel A) reports the share between fixed and variable-based compensation as a percentage of the total compensation, illustrating that 17% of the non-executive wages *per capita* represent a variable component. Also, bigger and smaller firms present the highest proportion of variable wages (representing 24% and 19% respectively). These results are valid exclusively for a characterization of the firm’s size based on their assets. In case firms are distinguished according to their sales, medium sized firms evidence the highest proportion of variables wages (22%), where small and larger firms evidence a bigger fixed component, 86% and 94% respectively.

Just a quick reference regarding the remunerations earned per non-executive member with independence *status* (“NE\_ind\_pay”), where on average they achieved a lower remuneration of 33,689.29 euros, when compared to the non-independent members.

Going further in this study, we are able to conclude that out of the 21 corporations which showed the presence of non-executive members with independent *status*, 5 did include a variable component on the remuneration package (around 24%). Extending this same analysis but including alternatively the firms with independent members on the Remuneration Committee, out of the 29 corporations studied 5 proved to include this variable element as part of the total compensation, which can be traduced into around 17% of the companies (table 9 – Panel B).

Regarding the firm’s performance, our results overall indicate that the average annual variation of the stock returns was 0.19%, with the maximum result showing 9.45% and the minimum -3.7%.

To explore further the importance that the firm’s capital structure might have on this topic, information was collected about the percentage of *freefloat*. Our results suggest that on average, the *freefloat* represents around 20% of the firm’s shareholder structure, where the maximum result observed was 47.3%.

As part of our empirical study, an analysis was conducted by industry from where we conclude that the majority of the corporations work on the industrial sector (24%), close to what was previously reported by Nascimento (2009), followed by the utilities market (table 10).

To conclude, it was explored the degree of compliance regarding the CMVM recommendations on Corporate Governance. On average, around 76% of the recommendations were considered as “adopted”, having the firm *Sonae* exhibited the highest percentage (95%) and *Imobiliária Grão-Pará* the lowest one (42%). Detailed information can be found on table 11.

### 3. Regression Analysis

In this section we will study the determinants that might be valuable in order to try to explain the non-executive's compensation schemes. We will introduce corporate governance variables as well as operating and accounting measures. Given the potential disciplinary role that the Remuneration Committee might have, we will investigate if its composition is able to influence the level of non-executive's compensation.

#### 3.1. Performance, size and the Remuneration Committee Structure

As earlier suggested by Stammerjohan (2004), presumably the better management decisions can be achieved by paying higher remunerations. As so, it should be expected that better performing firms should be associated with higher remuneration packages. In addition, defining compensation as a function of the firm's performance may be seen as a way to align interests between managers and shareholders, contributing for the agency problem (Murphy 1985; Kaplan 1994). However, given the monitoring role usually allocated to non-executive directors, it is plausible that performance has no relation to non-executive's compensation.

The aim of this regression is to try to explain the total variation of the non-executive's remuneration by including three explanatory variables which we believe are more important for this study. As a result, besides the firm performance, additional variables will be included in order to try to understand how non-executive's pay varies across different sized companies and how might the Remuneration Committee structure affect the compensation schemes.

$$\text{Log}(\text{Pay}_i) = \beta_1 + \beta_2 \text{Log}(\text{Returns}_i) + \beta_3 \text{Log}(\text{Assets}_i) + \beta_4 \text{Independent}_i + u_i$$

**Equation 2:** Performance, size and the Remuneration Committee Structure

Where  $Returns_i$  is the annual stock return,  $Assets_i$  represent the assets expressed in euros as a proxy of the firm's size and  $Independent_i$  relates to the proportion of independent members on the Remuneration Committee, for company  $i$ .

For the model presented above, we used an OLS model and the data from the 34 corporations in our sample.

Table 13 illustrates the results obtained with this specific equation. Our principal findings are in accordance with the previous researches of Stammerjohan (2004), Fernandes (2005) and Nascimento (2009) and, in discordance from Yermack (2002), with the stock returns not being statistically relevant for the composition of the remuneration of each non-executive member. The coefficients on performance are always considered to be negatively insignificant when considering exclusively the fixed remuneration. When considering only the variable compensation, the estimated coefficient shows some significance even though it maintains a negative relationship. The p-value exhibited by the variable "returns" considering exclusively the variable pay is statistically significant at the level of 1% significance. In addition, it is important to highlight the fact that only 8 corporations paid variable salaries (around 24% of the sample).

These results suggest that the non-executive's total compensation schemes are not significantly related with the firm performance.

In contrast, it can be noticed a size effect expressed through a positive and significant correlation between the non-executive's remuneration and the firm's size (represented through the firm's assets). The significance of this variable holds when considering the total, fixed and variable remunerations, being statistically relevant at the 1% and 5% levels of significance. As so, there is sufficient evidence to state that the firm's size is a significant influence on non-executive's total, fixed or variable components of remuneration. This conclusion is in line with our expectations since the larger (and consequently, more complex) the firm, the higher was the probability of having greater compensation schemes. It is equally related with the possibility that such companies need better trained, competent and more experienced directors (Kostiuk 1989; Acharya *et al.* 2014). Earlier Fernandes (2005) had already documented this effect with bigger

firms seeking for more non-executive members, arguably to correspond to the regulators' recommendations and in order to obtain additional visibility.

Regarding the proportion of independent members on the Remuneration Committee, our results cannot reject the null hypothesis of no impact of this variable on non-executive compensation.

To summarize, according to the sample analysed it can be concluded that the firm's size is a statistically significant determinant of the non-executive's total remuneration *per capita*. In contrast, the correlation between firm performance and non-executive compensation is not observed to be significant, with the exception of a significantly negative estimated coefficient when only the variable component of the remuneration is considered.

As earlier documented by Anderson and Bizjak (2000), the level of independence of the Remuneration Committee does not have a significant impact when defining compensation plans, more specifically, the CEO compensation plans.

For the purpose of this regression, we can still conclude for the absence of serial correlation as the Durbin-Watson test is close to 2 as well as the absence of heteroskedasticity (p-value of 0.06), when considering the non-executive's total remuneration *per capita*.

### **3.1.1. An alternative perspective for performance - ROCE**

On the previous section, the variable *Return* was used as a proxy of the firm's performance. Nonetheless, an alternative perspective was taken in consideration by using the variable *ROCE*. As mentioned previously, the annual stock returns might not be considered the best *proxy* in order to illustrate the company's performance as most of the times it does not reflect the company's "real" performance.

As so, the following regression was calculated:

$$\text{Log}(\text{Pay}_i) = \beta_1 + \beta_2 \text{Log}(\text{ROCE}_i) + \beta_3 \text{Log}(\text{Assets}_i) + \beta_4 \text{Independent}_i + \mu_i$$

**Equation 3:** An alternative perspective for performance - ROCE.

Where  $ROCE_i$  is the Return on Capital Employed of firm  $i$ , expressed in euros.

In this case, it is important to note that the firm *Sporting Clube de Portugal* evidences an extremely high ROCE (over -90%) which might distort the real results. As so, this company will be excluded from this equation and will be considered as an *outlier*.

By analysing the 33 observations we can conclude that the performance keeps evidencing a coefficient which is insignificantly different from zero, while the size effect maintains its statistical significance with a p-value of 0.042 (table 14). Consequently, we can conclude that, there is sufficient statistical evidence to conclude that the firm's size is an individually significant determinant factor, for the non-executive's total remuneration *per capita*. Even though the proportion of independent members on the Remuneration Committee shows a high estimated coefficient, it is still not statistically significant (as also observed for the previous equation on section 3.1).

### 3.1.2. The Independent Non-executive's Remuneration

On section 3.1, it was considered as the dependent variable, the non-executive's total remuneration *per capita*. Nonetheless, we thought it would be interesting to test an additional regression including instead the remuneration of the non-executive directors, which were considered as independent, by using the variable "NE\_ind\_Pay".

$$\text{Log}(NE\_Ind\_pay_i) = \beta_1 + \beta_2 \text{Log}(Returns_i) + \beta_3 \log(Assets_i) + \beta_4 Independent_i + \mu_i$$

**Equation 4:** The independent non-executive's remuneration

The major conclusion that can be documented refers to the firm's size for which there is statistical evidence to conclude for its individual significance at 1%. This variable exhibited a positive and significant estimated coefficient with a p-value of 0.001. The firm performance proved to have a negative impact, contrary to the Remuneration Committees structure, even though both variables are not individually significance (table 15).



### 3.2. The industry effect

Attempting to capture the industry effect, an additional variable was included on the next regression being expressed through a dummy variable denominated Industry. As so, this will try to incorporate other business factors which might help us to explain the non-executive's remuneration. The regression used was as follows:

$$\text{Log}(\text{Pay}_i) = \beta_1 + \beta_2 \text{Log}(\text{Returns}_i) + \beta_3 \text{Log}(\text{Assets}_i) + \beta_4 \text{Independent}_i + \theta_1 \text{Industry} + \mu_i$$

**Equation 5:** The industry effect

Where  $\text{Industry}_i$  is a *dummy* variable assuming the value of 1 if firm  $i$  belongs to a certain industry, or 0 if it doesn't. In fact, given the six industries already described earlier in this work, we will have 5 *dummy* variables (Construction, Industrial, Media, Sports and Utilities).

Table 16 reports the estimates of Equation 5. Following the earlier results, the non-executive's total remuneration keeps demonstrating that it is not significantly affected by the firm performance, being individual significant only when considering exclusively the non-executive's variable compensation (p-value of 0.000).

It is worth to mention that controls by industry were performed and contrary to Fernandes (2005) and Nascimento (2009), the introduction of the different industrial sectors allowed us to conclude that, in general, the estimated coefficients for the sectorial *dummies* are statistically insignificant for the non-executive's remuneration, with higher estimated coefficients.

Interestingly, we have noticed that out of the 7 corporations which illustrate a variable component on the non-executive's total compensation scheme, 4 of those belong to the industrial sector, illustrating a percentage over 57%.

Similarly to results from the previous section, the non-executive's total remuneration per *capita* is highly influenced by the firm's size<sup>19</sup> but not by the proportion of

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<sup>19</sup> This conclusion holds when considering the total compensation as well as when considering exclusively the fixed and the variable compensation parts.

independent members on the Remuneration Committee. In fact, only firm size proved to be statistically significant, when considering either the total pay, fixed or the variable pay components.

After analyzing regressions 2 and 5, the main idea that prevails is consistent with the fact that the non-executive's remuneration varies more according to the firm size and not much according to anything else, including the firm's performance. The presence of independent members on the Remuneration Committee also does not significantly influence the non-executive's remuneration.

In general terms, Equation 5 is globally significant with a p-value of 0.002, explaining 58.5% of the variations around the non-executive's remuneration average.

### 3.3. The impact of the level of debt

An alternative perspective was considered for the aim of this study. Working from the initial regression on section 3.1, we will now include an additional variable to analyze the potential impact provided by the level of debt. This variable was calculated by dividing the EBIT over the net debt and equity, observed in 2012.

$$\text{Log}(\text{Pay}_i) = \beta_1 + \beta_2 \text{Log}(\text{Returns}_i) + \beta_3 \text{Log}(\text{Assets}_i) + \beta_4 \text{Independent}_i + \beta_5 \text{LevelDebt}_i + u_i$$

**Equation 6:** The impact of the level of debt.

Where  $\text{LevelDebt}_i$  is the level of debt exhibited by firm  $i$ .

The main conclusion that can be obtained from this regression is that the level of debt is statistically relevant for determining the non-executive's remuneration *per capita* (p-value of 0.06), reproducing a negative impact on the compensation packages.

Nonetheless, this analysis was repeated excluding the *outliers*. There were particularly two companies which evidenced extremely high amounts for this indicator and therefore, the regression was tested again including only 32 observations<sup>20</sup>. However,

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<sup>20</sup> The company SAG GEST evidenced a level of debt of 12,157.8% and Soares da Costa 94.34%.

under these circumstances the level of debt was not proved to have a material impact on the non-executive's total remuneration, evidencing a positive but insignificant estimated coefficient, with a p-value of 0.21 when considering the total remuneration (table 17 – panel B)<sup>21</sup>. This suggests that the former result is being driven by some outliers in the sample, cautioning thus against strong conclusions being made about the real impact of debt on non-executive compensation levels.

### **3.4. The introduction of two additional variables: multinational status and ownership structure**

The compensation policies practised by corporations have been seriously debated over the last decades, attracting a considerable attention from the public, scholars and policy makers. The large remuneration packages which often add to millions of dollars/euros have raised some interestingly news headlines attracting considerable attention from society as a whole.

The analysis undertaken in this section will focus on the non-executive's remuneration levels and will extend the previous analysis into several directions. We will start by including a new variable which can be used to help us to have some insights about other potential factors that can affect non-executive's compensation.

Fama (1980) earlier defined the function of the non-executive directors, mentioning that their role is to track and monitor managers acts inside the corporation, acting on behalf of the shareholder's interests. They discipline themselves through the market mechanism, what contributes for the evaluation of their work and consequent performance. As so, the market acts determining the price of their services.

One of the new variables to be incorporated on this regression is related to the possibility of having firms belonging to a multinational group or not. This effect will be incorporated by a *dummy* variable which will assume the value of 1 in case the firm belongs to a multinational or 0 if not (Brunello *et al.*, 2001). Implicit is the idea that multinationals, given their larger pool of resources available, greater complexity and

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<sup>21</sup> This conclusion holds when considering exclusively the fixed and the variable remuneration per non-executive director.

possibly a stronger concern for internal monitoring mechanisms, are able to attract better qualified directors which in turn may translate into higher average pay levels.

Another variable which could be helpful in understanding which factors better contribute for the non-executive's remuneration is the *freefloat*. Companies with more concentrated ownership (lower level of free float) might need less demanding monitoring activities from non-executive directors and as a result, lower levels of pay may be observed. Accordingly, two additional components were included on the model earlier studied on section 3.2.

$$\begin{aligned} \text{Log}(\text{Pay}_i) = & \beta_1 + \beta_2 \text{Log}(\text{Returns}_i) + \beta_3 \text{Log}(\text{Assets}_i) + \beta_4 \text{Independent}_i \\ & + \beta_5 \text{Freefloat}_i + \theta_1 \text{Industry} + \theta_2 \text{Multinational}_i + \mu_i \end{aligned}$$

**Equation 7:** The introduction of two new variables

Where *Multinational<sub>i</sub>* is a dummy variable illustrating whether or not company *i* belongs to a multinational group and *Freefloat<sub>i</sub>* reports the percentage of *freefloat* found in each company.

Table 18 presents the ordinary least squares regarding Equation 7. Our results again suggest that the non-executive's total remuneration is not significantly affected by the proportion of independent members on the Remuneration Committee, similarly to what was observed in the previous models. Also in accordance with the previous conclusions reported along this study, the non-executive wages seems to be positively correlated with to firm's size but not with performance. Our findings support a significantly strong impact coming from the multinational dummy variable, presenting a p-value of 0.085 when considering the total remuneration per non-executive director. In other words, for a 10% level of significance, there is sufficient statistical evidence to conclude that the multinational factor is individually significant for determining the non-executive's level of compensation. This conclusion also holds when considering exclusively the fixed remuneration per non-executive member (p-value of 0.08).

In what refers to the industry effect, our findings suggest that the media and industrial companies exhibit higher compensation schemes, in contrast with sports and utilities' firms.

Regarding the *freefloat* impact, the table also reports that there is no major impact from this variable on the non-executive's total remuneration *per capita*. Actually, the estimated coefficient presents a weak positive value but which is not individually significant.<sup>22</sup>

These conclusions are particularly important as this regression explains around 69% of the variations around the non-executive's total remuneration *per capita*, being that it is considered globally significant at the 1% level of significance (F-statist. is equal to 0.001).

### **3.5. Alternative Perspectives**

Before finalizing our study, we found interesting to test the regression earlier presented by using two alternative specifications, which we believe could bring interesting insights.

#### **3.5.1. Analyzing firms with exclusively fixed-based remunerations**

This section explores the regression earlier presented on chapter 3.4 by studying exclusively the 26 firms which evidence a fixed-based pay only. We therefore excluded for this purpose 8 firm 23 which did include a variable compensation on the non-executive's wages.

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<sup>22</sup> We also ran this regression by adding the variable "*Recommendations*", defined as the percentage of compliance with CMVM's issued recommendations. The estimated coefficient for this variable, however, was not significantly different from zero.

<sup>23</sup> The 8 firms were: Cimpor, Corticeira Amorim, Galp, Mota Engil, Novabase, Portucel, Portugal Telecom and Semapa.

$$\begin{aligned} \text{Log}(\text{FixPay}_i) = & \beta_1 + \beta_2 \text{Log}(\text{Returns}_i) + \beta_3 \text{Log}(\text{Assets}_i) \\ & + \beta_4 \text{Independent}_i + \theta_1 \text{Industry} + \theta_2 \text{Multinational}_i + \mu_i \end{aligned}$$

**Equation 8:** Firms with exclusively fixed-based pay.

Where  $\text{FixPay}_i$  represents the total fixed remuneration per capita paid by firm  $i$ , in 2012 expressed in euros.

Table 19 reports that, with the exception of one of the sector *dummies* (sports), no significant impact is found from the explanatory variables under analysis, even though all the coefficients evidenced a positive sign. Given that the sample size has been substantially reduced, these results may be due to the small number of observations in this particular experiment.

### **3.5.2. Presence of a Remuneration Committee exclusively composed by independent members**

Besides the already presented variables, we believed it would also be potentially interesting to introduce an additional component to the regression earlier estimated on section 3.4, for the 34 corporations studied. The aim would be to study the impact of having firms with a Remuneration Committee exclusively composed by independent members. As so, a *dummy* variable will be included denominated *IndRemCommittee* expressing the value of 1 if the Committee is composed by 100% by independent members, or 0 if not.

The estimated regression will be based on the one presented by Equation 7, including a new variable denominated *IndRemCommittee*.

$$\begin{aligned} \text{Log}(\text{Pay}_i) = & \beta_1 + \beta_2 \text{Log}(\text{Returns}_i) + \beta_3 \text{Log}(\text{Assets}_i) + \theta_1 \text{Industry} \\ & + \theta_2 \text{Multinational}_i + \theta_3 \text{IndRemCommittee}_i + \mu_i \end{aligned}$$

**Equation 9:** Remuneration Committee exclusively composed by independent members

Table 20 provides the ordinary least squares regression for the equation presented above. Our principal findings suggest that having the Remuneration Committee exclusively composed by independent members has a positive impact over the non-executive's total remuneration *per capita* but which is not significant at conventional levels. On the other hand, the firm's size keeps its positive and significant impact on non-executive fixed pay (but not on total or variable compensation). Similarly, the multinational factor maintained its positive estimated coefficient in the case of considering only the total pay, proving to be individual significant with a p-value of 0.09.<sup>24</sup>

This regression is considered to be globally significant for 1% level of significance and it explains around 70% of the non-executive's remuneration movements around the average.

### **3.5.3. Probability of having exclusively fixed remunerations for non-executives**

As an additional regression, we explored the determinants of the probability that firms pay exclusively a fixed remuneration to their non-executive directors. As so, a *Logit* model was tested according to the following equation, being that the dependent variable is a *dummy* variable.

As a consequence, we defined as a *dummy* the variable "*Fix\_Only<sub>i</sub>*" assuming the value of 1 if the company *i* pays exclusively a fixed remuneration to the non-executive members, or 0 if not (which means that the company *i* includes also a variable component).

More specifically, due to the higher and positive coefficients presented for the variables *Assets* and *Multinational* on earlier regressions and since these two revealed always to be significant, we thought it would be valuable to include specifically these two variables on the regression model. Nonetheless, in order to complete the test as much as possible, additional variables were incorporated.

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<sup>24</sup> This variable was also individually significant when considering exclusively the fixed pay, at a 10% level of significance.

$$Fix\_Only_i = \beta_1 + \beta_2 \text{Log}(\text{Returns}_i) + \beta_3 \text{Log}(\text{Assets}_i) + \beta_4 \text{LevelDebt}_i + \beta_5 \text{Freefloat}_i \\ + \theta_1 \text{IndRemCommittee}_i + \theta_2 \text{Multinational}_i + \mu_i$$

**Equation 10:** Probability of having exclusively fixed remunerations

By analysing table 21, the results suggest a negative but statistically insignificant relation between the firm's size and the probability that a firm has non-executive directors being paid solely on the basis of a fixed component. Other variables are also statistically insignificant, with the exception of performance (measured with returns) that now presents a positive impact on the level of non-executive pay and also, the level of debt which has a negative impact on that probability. Consequently, we can conclude that the higher is a company's level of debt, the lower is the probability of having non-executive's remunerations exclusively fixed. In what regards to the firm's performance, an opposite relationship can be observed meaning that the better the firm performance, the higher is the probability of having exclusively fixed remunerations for the non-executive directors.<sup>25</sup>

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<sup>25</sup> Also for this regression it was tested the impact from the variable "*Recommendations*" over the probability of having the non-executive's remuneration solely fixed-based. The estimated coefficient for this variable, however, was not significantly different from zero.



#### 4. Conclusions

The non-executive's role inside a corporation is nowadays widely recognized by the society and scholars. They are considered to play a vital monitoring function inside corporations, evaluating the daily management and by having an active role on the Board. Acting as mediators on the relationship between management and shareholders and trying to fulfill the informational gap between the shareholders and executive managers, non-executive directors can contribute for the resolution of the agency problems. They act as independent members being even considered as "referees" of the executive's actions. In fact, the financial crises verified worldwide on the last decade and the bankruptcy of well-known firms such as Enron and WorldCom, arguably due to bad management and corporate governance problems, called the attention to this important problematic and lead to crucial discussions on the business world.

Given that the importance of these directors inside the Board has been broadly documented, our exploratory study sought to analyze which factors determine the non-executive's remuneration. As part of this study we have included mainly financial and accounting indicators, but also governance and ownership structure variables in order to help us explain as best as possible the level of non-executive's compensation.

By studying a sample of 34 non-financial corporations belonging to the Lisbon Stock Market (*PSI Geral*), for the year of 2012, we were able to observe that on average firms have more non-executive members on the Board, being the firms listed on the Lisbon stock exchange generally express small-medium sizes, considering the sample behind the study.

The first conclusion that can be taken is related to the firm's performance. Our main results suggest that the non-executive's wages are not significantly determined by the firm performance, as earlier documented by Stammerjohan (2004), Fernandes (2005) and Nascimento (2009). In contrast, our main findings reveal a strong size effect. In other words, there is sufficient statistical evidence to affirm that the firm's size does contribute for the determination of the non-executive total remuneration *per capita*. This conclusion is consistent with previous research (Kostiuk 1989; Fernandes 2005; Nascimento 2009; Acharya *et al.*, 2014) and is also in agreement with the idea that the

bigger the company, the more qualified directors it demands with consequently higher salaries. According to our sample, larger firms presented higher remunerations for non-executive members, with fixed wages representing around 80% of the total compensation, in a sample where small-medium sized firms are predominant.

The non-executive's compensation levels exhibited however a statistically insignificant relation with the proportion of independent members constituting the Remuneration Committee. For generally all the regressions earlier estimated, the coefficients obtained were always positive but not statistically significant at conventional levels. In a sample characterized by having Remuneration Committees composed by over 80% of independent members, we expected this variable to have a significant influence on non-executive pay, due to the importance of the Committee inside corporations and due to the role of independent members. However, we were not able to conclude that the Remuneration Committee structure played an important role in designing non-executive's compensation schemes.

In order to expand our analysis by considering other additional potentially significant factors, a control by industry was performed. Nonetheless, the respective results didn't had any relevant impact as the respective conclusions didn't had any materially change regarding the previous outcomes.

Also, as an attempt to capture the effect of having firm's incorporated in a multinational group, some additional tests were performed. The main results sustain the idea that in case a corporation belongs to a multinational group, the non-executive's total remuneration *per capita* is positively influenced by this, having this variable a significant individual impact. Also an ownership variable was also considered in the analysis, (the *Freefloat*) but it evidenced an insignificant impact on non-executive compensation.

As so, our main results suggest that the relation between the firm's performance and non-executive remuneration is insignificant for total and fixed pay, being only significant in the case of variable pay. The non-executive's pay is however, strongly influenced by firm's size. The multinational factor also presents a positive influence over the remunerations examined. In addition, we have also observed that the presence of Remuneration Committees that were entirely composed by independent members did

not affect the level of non-executive's remuneration, which was still mostly driven by a size factor. Finally, we also reported some evidence that the probability of having non-executive remunerations totally composed by a fixed amount is positively influenced by firm performance but not by firm size, multinational status or other factors. The probability of having exclusively fixed remunerations *per capita*, increases as the firm's performance improves and, as the level of debt decreases. These were the main individual significant factors which reported an individual significance.

## References

- Acharya, V., Gabarro, M. and Volpin, P. (2014), “Competition for Managers, Corporate Governance and Incentive Compensation”, European Corporate Governance Institute, Finance Working Paper N° 399/2014.
- Alves, C. and Mendes, V. (2001), “As Recomendações da CMVM relativas ao Corporate Governance e à Performance das Sociedades”, *Cadernos do Mercado de Valores Mobiliários*.
- Alves, C. (2007), “Uma perspectiva económica sobre as (novas) regras de Corporate Governance do Código das Sociedades Comerciais”, in *Jornadas em Homenagem ao Professor Douro Raúl Ventura – A reforma do Código das Sociedades Comerciais*, Coimbra: Almedina.
- Anderson, R. and Bizjak, J. (2000), ”An Empirical Examination of the Role of the CEO and the Compensation Committee in Structuring Executive Pay”, American University - Kogod School of Business, at [http://www.researchgate.net/publication/222164365\\_An\\_empirical\\_examination\\_of\\_the\\_role\\_of\\_the\\_CEO\\_and\\_the\\_compensation\\_committee\\_in\\_structuring\\_executive\\_pay/file/32bfe512b6eaf3b3b.pdf](http://www.researchgate.net/publication/222164365_An_empirical_examination_of_the_role_of_the_CEO_and_the_compensation_committee_in_structuring_executive_pay/file/32bfe512b6eaf3b3b.pdf).
- Baker, George P., and Hall, B.J. (2004), “CEO Incentives and Firm Size,” *Journal of Labor Economics*, vol. 22, pp. 767–798.
- Baker, George P., Jensen, Michael C. and Murphy, Kevin J. (1988), “Compensation and Incentives: Practice vs. Theory”, *Journal of Finance*, vol. 43, No. 3, pp. 593-616.
- Barber, B. and Lyon, J. (1996) “Detecting abnormal operating performance: The empirical power and specification of test statistics”, *Journal of Financial Economics*, vol. 41.
- Barontini, R. and Bozzi, S. (2011), “Board Compensation and ownership structure: Empirical evidence for Italian listed companies”, *Journal of Management & Governance*, vol. 15, pp. 59-89.

- Baysinger, B. and Butler, H. (1985), “Corporate Governance and the Board of Directors: Performance Effects of Changes in Board Composition”, *Journal of Law, Economics and Organization*, vol. 1, pp.101-124.
- Beasley, M. (1996), “An empirical analysis of the relation between the board of director composition and financial statement fraud”, *The Accounting Review*, vol. 71, pp. 443-465.
- Bebchuk, L. and Fried, J. (2003), “Executive compensation as an agency problem”, National Bureau of Economic Research, Paper 9813.
- Bebchuk, L. and Fried, J. (2005), “Pay Without Performance: Overview of the Issues”, Harvard Law School John M. Olin Center for Law, Economics and Business Discussion Paper Series, paper 528. ([http://lsr.nellco.org/cgi/viewcontent.cgi?article=1316&context=harvard\\_olin](http://lsr.nellco.org/cgi/viewcontent.cgi?article=1316&context=harvard_olin)).
- Becht, M. (1999), “European Corporate Governance: Trading off liquidity against control”, *European Economic Review*, vol. 43 (4-6), pp. 1071-1083.
- Berle, A. Adolf and Means, Gardiner C. (1932), “The Modern Corporation and Private Property” New York: Harcourt, Brace & World, Inc.
- Bhagat, S. and Black, B. (2002), “The Non-correlation Between Board Independence and Long-Term Firm Performance”, *Journal of Corporation Law*, vol. 27, pp. 231-273.
- Boone, A., Field, L., Karpoff, J. and Raheja, C. (2007), “The determinants of corporate board size and composition. An empirical analysis”, *Journal of Financial Economics*, vol. 85, pp. 66-101.
- Boyd, B.K. (1994), “Board control and CEO compensation”, *Strategic Management Journal*, vol. 15, pp. 335-344.
- Brickley, J., Coles, J. and Terry, R. (1994), “Outside directors and the adoption of poison pills”, *The Journal of Financial Economics*, vol. 35, pp. 371-390.
- Brunello, G., Graziano C. and Parigi, B. (2001), “Executive Compensation and Firm Performance in Italy”, *International Journal of Industrial Organization*, vol. 19.
- Cadbury Report (1992), “Report of the Committee on the Financial Aspects of Corporate Governance”, London: Gee.

Católica Lisbon Business Economics (2013), “Governo das Sociedades em Portugal em 2012”, Relatório Católica/AEM, Centro de Estudos Aplicados da Católica-Lisbon School of Business & Economics, at [http://www.clsbe.lisboa.ucp.pt/resources/Documents/PROFESSORES/CEA/Estudos%20Recentes/AEM\\_Catolica\\_CorporateGovernance\\_Relatorio2013.pdf](http://www.clsbe.lisboa.ucp.pt/resources/Documents/PROFESSORES/CEA/Estudos%20Recentes/AEM_Catolica_CorporateGovernance_Relatorio2013.pdf).

Chen, Kevin C.W., Chen Z. and Wei K.C. John (2009), “Legal protection of investors, corporate governance, and the cost of equity capital”, *Journal of Corporate Finance*, vol. 15.

Chowdhury, S.D. and Wang, E.Z. (2009), “Institutional activism types and CEO compensation: A time-series analysis of large Canadian corporations.”, *Journal of Management*, vol. 35, pp. 5-36.

Código das Sociedades Comerciais (2014), Portugal at:

<http://www.irn.mj.pt/sections/irn/legislacao/docs-legislacao/codigo-das-sociedades/downloadFile/file/soc.pdf>.

Código de Governo das Sociedades da CMVM (recomendações; 2013), Portugal.

Coles, J., Daniel N. and Naveen, L. (2008), “Does one fit all?”, *Journal of Financial Economics*, vol. 87, pp. 329-356.

Conyon, M.J. and Leech, D. (1993), “Top pay, Company performance and Corporate Governance”, *Warwick Economic Research Papers No. 410*, Warwick University.

Conyon, M. and Murphy, K. (2000) “The Prince and the Pauper? CEO Pay in the United States and United Kingdom,” *Economic Journal*, vol. 110, F640.

Conyon, M.J., Gregg, P. and Machin, S. (1995), “Taking care of business: Executive compensation in the UK”, *Economic Journal*, vol. 105.

Core, J.E., Holthausen, R.W. and Larcker, D.F. (1999) “Corporate Governance, chief executive officer compensation, and firm performance”, *Journal of Financial Economics*, vol. 51, pp. 371-406.

John, Core, Guay, Wayne and Larcker, David F. (2003), “Executive Equity Compensation and Incentives: A Survey”, *Economic Policy Review* 9, pp. 27–50.

- Cosh, A. and Hughes, A. (1995), “Executive remuneration, executive dismissal and institutional shareholdings”, ESRC Centre of Business Research, University of Cambridge, Working Paper no. 19.
- Cosh, A. (1975), “The Remuneration of Chief Executives in the United Kingdom”, *Economic Journal*, vol. 85.
- Cotter, James F., Shivdasani, A. and Zenner, M. (1997), “Do Independent Directors Enhance Target Shareholders Wealth During Tender Offers?”, *Journal of Financial Economics*, vol. 43, pp. 195-218.
- Crystal, G. (1991), “In Search of Excess: The Overcompensation of American Executives”, W.W. Norton and Company, New York.
- Daily, C., Johnson, J., Ellstrand, A. and Dalton D. (1998), “Compensation Committee Composition as a Determinant of CEO Compensation”, *Academy of Management Journal*, vol. 41.
- Edmans, A. (2013), “Blockholders and Corporate Governance”, European Corporate Governance Institute, Finance Working Paper N° 385/2013, at [http://www.ecgi.org/wp/search\\_title.php?title=blockholders+and+corporate+governance&submit3.x=43&submit3.y=5&submit3=Search](http://www.ecgi.org/wp/search_title.php?title=blockholders+and+corporate+governance&submit3.x=43&submit3.y=5&submit3=Search).
- Fama, E. and Jensen, M. (1983), “Separation of Ownership and Control”, *Journal of Law and Economics*, Vol. XXVI.
- Fama, E. (1980), “Agency Problems and the Theory of the Firm”, *The journal of Political Economy*, vol. 88, pp. 288-307.
- Farinha, J. and Costa, Lúcia B. (2009), “A Rotação dos Gestores nas Empresas Cotadas Portuguesas”, *Cadernos do Mercado de Valores Mobiliários*, Agosto 2009, pp. 9-39.
- Fernandes, N. (2005), “Board Compensation and Firm Performance: The Role of Independent Board Members”, European Corporate Governance Institute, Finance Working Paper N° 104/2005.
- Financial Reporting Council (2003), “Combined Code on Corporate Governance”, Department of Trade and Industry, London.

Finkelstein, S. and Hambrick, D. (1989), “Chief executive compensation: a study of the intersection of markets and political processes”, *Strategic Management Journal*, vol. 10, pp. 121-134.

Fogel, K., Ma, L. and Morck, R. (2014), Powerful Independent Directors, European Corporate Governance Institute, Finance Working Paper n° 404/2014.

Gregg, P., Machin, S. and Szymanski, S. (1993), “The disappearing relationship between director’s pay and corporate performance”, *British Journal of Industrial Relations*, vol. 31.

Hail, L. and Leuz, C. (2006a), “International differences in the cost of equity capital: do legal institutions and securities regulation matter?”, *Journal of Accounting Research*, vol. 44.

Hall, Brian J. and Jeffrey B. Liebman (1998), “Are CEOs Really Paid Like Bureaucrats?”, *Quarterly Journal of Economics*, vol. 103.

Hamdani, A. and Kraakman, R. (2007), “Rewarding outside directors”, Harvard Law School, Discussion paper n° 578 01/2007, at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=959210](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=959210).

Hermalin, B. and Weisbach, M. (1998b), “The determinants of board composition”, *Journal of Economics*, vol. 19, pp. 95-112.

Hermalin, B. and Weisbach, M. (2003), “Boards of Directors as an Endogenously Determined Institution: A Survey of the Economic Literature”, FRBNY Economic Policy Review 9, pp.7-22.

Higgs, D. (2003), “Review of the Role and Effectiveness of Non-Executive Directors.” London: DTI.

Hill, C.W. and Phan, P. (1991), “CEO tenure as a determinant of CEO pay”, *Academy of Management Journal*, vol. 34, pp. 707-717.

Holmström, B. (1979), “Moral Hazard and Observability”, *The Bell Journal of Economics*, vol. 10.

Holmström, B. (1999), “Managerial incentives problems: A dynamic perspective”, *Review of Economic Studies* vol. 66, pp. 169-182.



- Jensen, M. C and Meckling W, (1976), “Theory of The Firm: Managerial Behavior, Agency Costs and Ownership Structure”, *Journal of Financial Economics*, vol. 3.
- Jensen, M. C. and Murphy, K. J., (1990a) “Performance Pay and Top-Management Incentives,” *Journal of Political Economy*, vol. XCVIII, n° 2, pp. 225-264.
- Jensen, M. C. (1993), “The modern industrial revolution, exit, and the failure of internal control systems”, *The Journal of Finance*, vol. 48, pp. 831-880.
- Kaplan, Steven N. (1994), “Top Executive Rewards and Firm Performance: A Comparison of Japan and the U.S.”, *Journal of Political Economy*, vol. 102.
- Kaplan, Steven N. (2012), “Executive’s Compensation and Corporate Governance in the .U.S: Perceptions, Facts, and Challenges”, National Bureau of Economic Research Reporter, n° 3.
- Klein, A. (1998), “Firm performance and board committee structure”, *Journal of Law and Economics*, vol. 41, pp. 275-304.
- Knyazeva, A., Knyazeva, D. and Masulis, R. (2011), “The Supply of Corporate Directors and Board Independence”, European Corporate Governance Institute, working paper n° 315/2011.
- Kostiuk, Peter F. (1989), “Firm Size and Executive Compensation”, *The Journal of Human Resources*, vol. XXV, pp. 90-105.
- Krivogorsky, V. (2006), “Ownership, board structure, and performance in continental Europe”, *The International Journal of Accounting*, vol. 41, pp. 176-197.
- Lambert, R., Larcker, D. and Weigelt, K. (1993), “The structure of organization incentives”, *Administrative Science Quarterly*, vol. 38, pp. 438-461.
- Larcker, David F. and Tayan, Brian (2011), *Corporate governance matters: a closer look at organizational choices and their consequences*, Pearson Education Inc.
- Li, J. (1994), “Ownership Structure and Board Composition: A Multi-country Test of Agency Theory Predictions”, *Managerial and decision economics*, vol. 15.
- Long, T., Dulewicz, V. and Gay, K. (2005), “The role of Non-executive Director: findings of an empirical investigation into differences between listed and unlisted UK Boards”, *Corporate Governance: an international overview*, vol. 13, N° 5.

- Mace, M. L. (1971), "Directors: Myth and Reality", Harvard University Graduate School of Business Administration, Boston, MA.
- Macey, J.R. (1998), "Corporate Governance in Italy: One American's Perspective", *Columbia Business Law Review*.
- Main, B.G.M. and Johnston, J. (1993), "Remuneration committees and corporate governance", *Accounting and Business Research*, vol. 23.
- Main, B.G.M., Bruce, A. and Buck, T. (1994), "Total Board Remuneration and Company Performance", *University of Edinburgh Discussion Paper series*.
- Main, B.G.M. (1991), "Top Executive Pay and Performance", *Managerial and Decision Economics*, vol. 12, pp. 219-229.
- Mallin, C. (2003), "Non-executive directors: key characteristics", *Corporate Governance: An International Review*, vol. 11, pp. 287-288.
- Masulis, R. and Mobbs, S. (2011), "Are all inside directors the same?", *Journal of Finance*, vol. 66, pp. 823-872.
- Masulis, R. and Mobbs, S. (2013), "Reputation Incentives of Independent Directors: Impacts on Board Monitoring and Corporate Actions", European Corporate Governance Institute, Finance Working Paper N° 353/2013, at [http://www.ecgi.org/wp/search\\_title.php?title=reputation+incentives+of+independent&submit3.x=12&submit3.y=9&submit3=Search](http://www.ecgi.org/wp/search_title.php?title=reputation+incentives+of+independent&submit3.x=12&submit3.y=9&submit3=Search).
- Meeks, G. and Whittington, G. (1975), "Directors Pay, Growth and Profitability", *Journal of Industrial Economics*, vol. 24, N° 1 (September), pp. 1-14.
- Mehran, H. (1995), "Executive compensation structure, ownership, and firm performance", *Journal of Financial Economics*, vol. 38, pp. 163-184.
- Menzio, A., Erbetta, F., Fraquelli, G and Vannoni, D (2011), "The determinants of board compensation in SOEs. An application to Italian local public utilities", Carlo Alberto Notebook, working paper 231.
- Murphy, K.J. (1985), "Corporate performance and managerial remuneration: An empirical analysis", *Journal of Accounting and Economics*, vol. 7, pp. 11-42.

Murphy, K.J. (1999), "Executive compensation", Marshall School of Business, University of Southern California.

National Association of Corporate Directors (1996), "NACD Blue Ribbon Commission Report on Director Professionalism".

Nascimento, R. (2009), "A Remuneração dos Administradores e o Desempenho da Empresa: o Caso Português", *Cadernos do Mercado de Valores Mobiliários*, nº 32.

Newman, H. and Mozes, H. (1999), "Does the Composition of the Compensation Committee Influence CEO Compensation Practices?", *Financial Management* vol. 28.

Nogueira, S. (2011), "O Impacto da Presença e Características dos Administradores Independentes no Desempenho das Empresas – o caso Português", Dissertation of Master in Finance, Faculdade de Economia do Porto, University of Oporto.

OECD (2004), "Principles of Corporate Governance", OECD publications.

Peasnell, K.V., Pope, P.F. and Young, S. (1998), "Outside Directors, Board effectiveness, and Earnings Management", Lancaster University.

Pettigrew, A. M. and T. McNulty (1995), "Power and Influence in and around the Boardroom", *Human Relations*, vol. 48.

Roberts, J., McNulty, T. and Stiles, P. (2005), "Beyond Agency Conceptions of the Work of Non-Executive Director: Creating Accountability in the Boardroom", *British Journal of Management*, vol. 16, S5-S26.

Rosen, Sherwin (1992), "Contracts and the Market for Executives", in Werin, L., Wijkander, H. (Eds.), *Contract Economics*, Blackwell, Oxford, pp. 181-211.

Rosenstein, S. and Wyatt, J. (1990), "Outside directors, board independence, and shareholder wealth", *Journal of Financial Economics*, vol. 26, pp. 175-191.

Sapp, S.G. (2007), "The impact of corporate governance on executive compensation", Working Paper, University of Western Ontario. Available at SSRN: <http://ssrn.com/abstract=1107943>.

Sarbanes-Oxley Act (2002). US legislature H.R.3763.

Shleifer, A. and Vishny, R. W. (1986) "Large Shareholders and Corporate Control", *Journal of Political Economy*, vol. 94 (3), pp. 461-488.

Silva, A., Vitorino, A., Alves, C., & Monteiro, M. (2006). “Livro Branco sobre Corporate Governance em Portugal”, Lisbon: Instituto Português de Corporate Governance.

Silva, Paulo P. (2009), “Comissão de Remunerações, Compensação dos gestores e Desempenho das empresas”, *Caderno do Mercado de Valores Mobiliários*, nº 33, Agosto 2009, pp. 72-91.

Smith, A. (1776) “The Wealth of Nations”. London: Methuen & Co., Ltd, pp. 334

Stammerjohan, William (2004), “CEO Compensation and Subsequent Firm Performance: An Empirical Investigation”, *Corporate Ownership & Control*, vol. 2, issue 1.

Vafeas, Nikos (1999), “Boar meeting frequency and firm performance”, *Journal of Financial Economics*, vol. 53, pp. 113-142.

Williamson, O. (1985), “The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting”, Free Press, New York.

Yermack, D. (1996), “High market valuation of companies with a small board of directord”, *Journal of Financial Economics*, vol. 40, pp. 185-211.

Yermack, D. (2002), “Remuneration, Retention, and Reputation Incentives for Outside directors”, Department of Finance, Stern School of Business, New York University.

Zhu, Y., Gary G. G. and Ma S. (2009), “Executive compensation, board characteristics and firm performance in China: the impact of compensation committee”, Faculty of Business, 22<sup>nd</sup> Australian Finance and Banking Conference.

#### **Internet sites**

<http://www.accountingin.com/>

<https://europeanequities.nyx.com/pt-pt/enternext>

<http://www.cmvm.pt>

## Appendix 1 - Descriptive statistics

**Table 1** – Descriptive Statistics

The table below illustrates the main descriptive statistics for the variables considered for the aim of this study. The variable “Exec” stands for the number of executive members inside the Board, “NonExe” the proportion of non-executive directors on the Board and “NE\_Ind” for the number of non-executive members considered as independent. In addition, “Independent” stands for the proportion of independent members constituting the Remuneration Committee, “Pay” the total remuneration per non-executive member in euros, “NE\_Ind\_pay” the total remuneration earned by the independent non-executive members and “Recommendations” represents the degree of adopted recommendations on corporate governance proposed by CMVM. At last, “Returns” stands for the average annual stock return and “Freefloat”, represents the ownership structure, traducing the percentage of *freefloat* present in each corporation.

	Mean	Median	Maximum	Minimum	Std. Dev.	Obs.
<b>Assets</b>	2.802.632.735	609.727.689	20.095.700.000	33.633.623	4.643.378.190	34
<b>Sales</b>	1.432.567.468	207.469.255	18.507.000.000	1.015.146	3.610.209.543	
<b>Exec</b>	3,911	4,000	7,000	1,000	1,505	
<b>NonExec (NE)</b>	0,553	0,578	0,875	0,200	0,179	
<b>NE_ind</b>	2,235	2,000	7,000	0,000	2,244	
<b>Independent</b>	0,814	1,000	1,000	0,000	0,359	
<b>Pay</b>	81.885,72	50.719,69	378.202,30	0,000	91.013,39	
<b>NE_ind_pay</b>	33.689,29	19.450,00	300.540,90	0,000	56.095,16	
<b>Recommendations</b>	0,757	0,754	0,945	0,418	0,101	
<b>Returns (%)</b>	0,187	0,040	9,450	-3,700	1,811	
<b>Freefloat (%)</b>	19,186	18,650	47,290	0,000	13,579	

**Table 2 - Control/Explanatory variables**

Control / Explanatory variables	Designation	Calculation	Previous studies	Expected Sign	Theoretical and Empirical Foundations
Stock returns	Log>Returns)	Average Annual Stock Returns	Core and Guay (2001) Stammerjohan (2004) Fernandes (2005) Nascimento (2009)	no impact	As earlier documented by other authors, the board compensation is not significantly related to firm performance. For the non-executive's total remuneration, it is expected no significant impact of firm performance on non-executive remuneration if such directors are expected to exercise mostly a monitoring function.
Return on Capital Employed	Log(ROCE)	$ROCE = \frac{EBIT}{Equity + Debt}$		no impact	Alternative perspective to the stock returns. No significant impact is expected in what regards to the non-executive's remuneration.
Assets	Log(Assets)	Financial Reports	Baker et al. (1988) Kostiuk (1989) Stammerjohan (2004) Krivogorsky (2006) Fernandes (2005) Nascimento (2009)	+	A proxy to the firm's size. Controls the dimension of the company. Consistent with the idea that bigger firms are more complex and demand more competent and experienced directors, either executives or non-executives. Thus, bigger firms may be characterised by having more serious agency problems that may impact on higher remunerations for directors.
Sales	Log(Sales)	Financial Reports	Silva (2009) Brunello (2001)	+	An alternative measure used as proxy of the firm's size. For non-executive's, a higher remuneration is expected from larger firms.
Proportion of independent directors on the Remuneration Committee	Independent	$\frac{N^o \text{ of independent directors}}{N^o \text{ of members on the Remuneration Committee}}$	Daily et al. (1998) Anderson and Bizjak (2000) Knyazeva (2011)	+	No clear evidence demonstrated between the proportion of independent members of the Remuneration's Committee and the CEO compensation. We expect that as Remuneration Committees want more qualified non-executive directors, they will be willing to pay more. As so, a positive correlation is expected.
Multinational corporations	Multinational	} 1, if the company is a multinational 0, if not.	Brunello et al. (2001)	+	It is expected that the non-executive's compensation is higher when firm's belong to a multinational group.
Industry	Industry	} 1, if the company operates in industry <i>i</i> 0, if not.	Fernandes (2005) Nascimento (2009) Nogueira (2011)	+/-	Previous studies reported lacking significance of the firm's industrial sector over the executive's compensation. Regarding the non-executive's specific case, we will include this industry control (by including 5 dummy variables) in order to control for different sectorial groups. No specific outcome is expected from these.
Ownership Structure (freefloat)	Ownership Structure	Financial Reports	Jensen and Meckling (1976)	-	A more concentrated ownership may bring less importance attached to external monitoring and thus, a negative impact on non-executives' remuneration is expected. This means that a lower float should have a negative impact on non-executives' remuneration.
CMVM recommendations	Recommendations	Corporate Governance Reports		-	In companies where the degree of compliance regarding the CMVM recommendations is significantly high, it could be expected that the non-executive's monitoring role is less important meaning that their remunerations can be lower.

**Table 3 - Listed firms studied**

This table illustrates all the 34 firms studied along this work, for the year 2012. In addition, it aggregates additional information from each company, such as if it is a multinational or not (represented by the black dot if yes, or blank if no), if its Board is composed by executive and/or non-executive members and if it contains a Remuneration Committee. In addition, it also reflects if the corporation has accomplished with recommendations II.1.2.1 and II.1.2.2. and if the non-executive directors have received a fixed and/or variable pay.

	Name	Multinational	Executive	Non-Executive	Remuneration Committee	Recommendation II.1.2.1.	Recommendation II.1.2.2.	Fixed Rem.	Variable Rem.
1	Altri	•	•	•	•			•	
2	Brisa	•	•	•	•	•		•	
3	Cimpor	•	•	•	•	•	•	•	•
4	Cofina	•	•	•	•	•		•	
5	Corticeira Amorim	•	•	•	•	•		•	•
6	EDPR	•	•	•	•	•	•	•	
7	FCP		•	•	•				
8	Galp	•	•	•	•	•	•	•	•
9	Glintt	•	•	•	•	•		•	
10	Ibersol	•	•	•	•	•		•	
11	Imobiliária Grão-Pará		•	•		•			
12	Impresa		•	•	•	•	•	•	
13	Inapa	•	•	•	•	•	•	•	
14	Jerónimo Martins	•	•	•	•	•	•	•	
15	Lisgrafica		•	•	•	•		•	
16	Martifer	•	•	•	•	•	•	•	

17	Media Capital	•	•	•	•	•		•	
18	Mota Engil	•	•	•	•	•		•	•
19	Novabase	•	•	•	•	•		•	•
20	Orey Antunes	•	•	•	•	•	•	•	
21	Portucel		•	•	•	•		•	•
22	PT	•	•	•	•	•		•	•
23	Ramada		•	•	•	•		•	
24	Reditus	•	•	•	•	•		•	
25	REN	•	•	•	•	•	•	•	
26	SAG GEST	•	•	•	•	•		•	
27	Semapa	•	•	•	•	•	•	•	•
28	Soares da Costa	•	•	•	•	•		•	
29	Sonae	•	•	•	•	•	•	•	
30	Sporting		•	•		•			
31	SumolCompal	•	•	•	•	•		•	
32	Toyota Caetano		•	•	•				
33	Vista alegre		•	•	•	•		•	
34	ZON		•	•	•	•	•	•	



**Table 4** - Descriptive statistics in terms of firm's size

The 34 firms analysed along this work were categorized in terms of their size. As a result, firms were classified as “small”, “medium” or “large” depending on the criteria used. This analysis was initially made by taking in consideration the firm's total assets (in euros) and secondly, recurring to the firms total sales (in euros), as an alternative perspective. Panels A and B illustrate the number of firms per characterization, following the different approaches used.

**Panel A** - Illustrates the number of “small”, “medium” and “large” firms, based on their assets verified in 2012.

	<b>N° observations</b>	<b>%</b>
Large	1	2,94%
Medium	8	23,53%
Small	25	73,53%
Total	34	100%

**Panel B** - Illustrates the number of “small”, “medium” and “large” firms, based on their sales verified in 2012.

	<b>N° observations</b>	<b>%</b>
Large	1	2,94%
Medium	5	14,71%
Small	28	82,35%
Total	34	100%

**Panel C** - Specifies the firms and their category (“small”, “medium” or “large”), based on their assets (expressed in euros).

<b>Firm</b>	<b>Assets (€)</b>	<b>Size</b>	<b>N° Observations</b>
PT	20.095.700.000	Large	1
Galp	13.908.574.000	Medium	8
EDPR	13.301.973.000		
Cimpor	7.089.500.000		
Sonae	6.035.355.458		
Brisa	4.922.500.000		
Jerónimo Martins	4.892.973.000		
REN	4.686.054.000		
Semapa	4.227.960.142		
Mota Engil	3.598.748.533	Small	25
Portucel	2.724.500.000		
Soares da Costa	1.792.000.000		
ZON	1.611.000.000		
Martifer	1.037.833.335		
SAG GEST	814.050.869		
Inapa	677.239.000		
Corticeira Amorim	643.767.000		
SumolCompal	575.688.378		
Media Capital	351.281.843		
Ibersol	223.982.513		
Novabase	218.956.000		
Glantt	216.564.956		
FCP	215.068.000		
Toyota Caetano	193.105.879		
Reditus	185.156.600		
Impresa	175.015.239		
Ramada	167.630.286		

Cofina	142.416.968		
Sporting	139.464.000		
Vista alegre	130.435.000		
Altri	112.836.000		
Orey Antunes	86.789.175		
Imobiliária Grão-Pará	61.760.201		
Lisgrafica	33.633.623		

**Panel D** - Specifies the firms and their category (“small”, “medium” or “large”), based on their sales (expressed in euros).

<b>Firm</b>	<b>Sales (€)</b>	<b>Size</b>	<b>Nº Observations</b>
Galp	18.507.000.000	Large	1
Jerónimo Martins	10.876.000.000	Medium	5
Sonae	4.552.547.876		
Mota Engil	2.243.167.000		
Semapa	1.952.600.000		
Cimpor	1.510.000.000		
Portucel	1.501.600.000	Small	28
EDPR	1.160.182.000		
Inapa	926.700.000		
ZON	852.086.000		
Soares da Costa	801.848.536		
REN	588.973.000		
Corticeira Amorim	534.240.000		
Altri	522.314.000		
Martifer	481.391.925		
SumolCompal	295.700.000		
Toyota Caetano	216.271.646		
PT	198.666.864		

Ibersol	171.310.000		
Media Capital	133.190.000		
Orey Antunes	120.030.991		
Ramada	109.336.000		
Glintt	91.123.513		
Novabase	74.280.000		
Cofina	60.076.304		
FCP	56.937.723		
Vista alegre	54.236.000		
Impresa	34.097.865		
Sporting	27.722.000		
Lisgrafica	22.455.000		
Brisa	14.286.000		
Reditus	14.241.537		
Imobiliária Grão-Pará	1.666.978		
SAG GEST	1.015.146		

**Table 5 - Board's composition**

The following tables will describe in detail the Board's composition of the 34 firm's studied.

**Panel A** - Illustrates the average Board size (specifying the number of executive and non-executive directors on the Board), considering the 34 corporations studied for 2012. The first row refers to the number of directors, while the second reflects the proportion regarding the Board size. The last column (Board size) is the sum of executive and non-executive members inside the Board.

	N° observations	Executive	Non-executive	Independent non-executive	Board size
N°	34	3,9	4,8	2,2	8,7
%		45%	55%		100%

**Panel B** - This table represents the weight that the non-executive members considered as independent have, both on the total number of non-executive directors (1) and on the total number of members that constitute the Board (2).

	<b>Independent non-executive</b>	<b>Non-executive members</b>	<b>Total Board</b>
<b>Nº</b>	2,2	4,8	8,7
<b>%</b>		45,80% (1)	25,30% (2)

**Panel C** - Specifies the average number of executive, non-executive and independent non-executive members that constitute the Board. The first column illustrates the number of firms considered as “large”, “medium” or “small”, while the last one, “board size”, illustrates the average Board size according to the firm’s dimension. The results below hold for firms which size was characterized based on their assets.

	<b>Nº observations</b>	<b>Executive</b>	<b>Non-executive</b>	<b>Independent non-executive</b>	<b>Board size</b>
Large	1	7,0	17,0	7,0	24,0
Medium	8	4,5	9,5	4,5	14,0
Small	25	5,1	4,4	1,3	9,6
Total	34	16,6	30,9	12,8	47,6

**Panel D** - This table reports the same kind of information as Panel C (presented above). In this case, the results below hold for firms which size was characterized based on their sales.

	<b>Nº observations</b>	<b>Executive</b>	<b>Non-executive</b>	<b>Independent non-executive</b>	<b>Board size</b>
Large	1	7,0	14,0	7,0	21,0
Medium	5	4,4	8,2	3,8	12,6
Small	28	5,1	5,3	1,8	10,4
Total	34	16,5	27,5	12,6	44,0

**Table 6 - CMVM recommendations**

Recommendations II.1.2.1 and II.1.2.2. were analysed for each single firm. Below we can find a summary of the firm's which did accomplish with these recommendations (in absolute and percentage terms).

Reccomendation	% of firms Applying the recommendation	N° observations
II.1.2.1.	91%	31
II.1.2.2.	35%	12

**Table 7 - Non-executive members present on the Board**

Describes in detail the corporations and the respective proportion of non-executive members on the Board (columns 1 and 2). The last column refers to the percentage of firms with more than 80% of non-executive members constituting the board, between 50% and 79% and, at last less than 50%.

Firm	Non Exec on board	N° observations	%
Impresa	87,5%	3	9%
REN	80,0%		
Media Capital	80,0%		
ZON	76,5%	22	65%
Cimpor	73,3%		
Jerónimo Martins	72,7%		
PT	70,8%		
Reditus	70,0%		
Sonae	70,0%		
Martifer	66,7%		
Galp	66,7%		
Cofina	66,7%		
EDPR	64,3%		
Brisa	64,3%		
Orey Antunes	62,5%		
Soares da Costa	60,0%		
Mota Engil	60,0%		
Glantt	55,6%		
Portucel	54,5%		

Novabase	53,8%		
SumolCompal	50,0%		
Corticeira Amorim	50,0%		
Inapa	50,0%		
SAG GEST	50,0%		
Semapa	50,0%		
Sporting	40,0%		
Toyota Caetano	37,5%		
Vista alegre	33,3%		
Ibersol	33,3%		
Imobiliária Grão-Pará	33,3%	9	26%
Ramada	33,3%		
Lisgrafica	25,0%		
Altri	20,0%		
FCP	20,0%		

**Table 8** - The Remuneration Committee structure

The panels below specify the characteristics of the Remuneration Committee as a whole (Panel A) and, specifying according to the firm's size (Panel B).

**Panel A** - Reports the average number of members (1) composing the Remuneration Committee, excluding the company *Sporting Clube de Portugal*, for the reasons already mentioned earlier in this work. This table also reports the number (2) as well as the proportion of independent members over the Committee total size (3).

	<b>Total</b>	<b>Nº independent members</b>	<b>% independent members</b>
2012	2,91	2,51	86%
	(1)	(2)	(3)

**Panel B** - Summarizes the average number of members that constitute the Remuneration Committee, based on the firm's size. In this case, the firm's size was characterized based on the assets verified in 2012. For this purpose, the firm *Sporting Clube de Portugal* was considered as small firm but due to lack of data, it was excluded from these statistics.

	Total	% independent members
Large	3,00	100%
Medium	3,00	83%
Small	2,88	83%

**Table 9** - The Non-Executive's Remuneration

The table illustrated below represents a summary of the descriptive statistics in what refers to the non-executive's remuneration policy. Panel A contains the total compensation expressed in euros, including the remuneration per capita. Panel B reports the remuneration per capita, according to the firm's size (earlier calculated based on their assets).

**Panel A** - Annual compensation of the Non-executive directors, expressed in euros. Columns (2) and (4) represent the weight that both fixed and variable wages respectively, have on the total remuneration packages (5). Columns (1) and (2) express the amounts in euros.

	Fixed (1)	% (2)	Variable (3)	% (4)	Total (5)
Total	16.252.347,50	82%	3.497.169,94	18%	19.749.517,44
Per Capita	67.803,40	83%	14.120,16	17%	81.923,56

**Panel B** - Reports the kind of firms which included a variable component on the annual compensation schemes. Specifically, it traduces the firms with non-executive members considered as independent as well as the firms with their Remuneration Committee composed, partially or totally, by independent members (column 1). Column 2 indicates



the firms with independent non-executive directors and with independent members on the Remuneration Committee, which include a variable component on their compensation schemes. Column 3 illustrates a percentage of firms including variable wages (2) over the n° of observations (1). Column 5 incorporates the firms paying variable pays (2) over the total number of observations (4) composing our sample.

	N° of observations (1)	N° of firms paying variable component (2)	% (3)	Total N° observations (4)	% (5)
Firms with independent non-executive members	21	5	24%	34	15%
Remuneration Committee with independent members	29	5	17%	34	15%

**Panel C** - Annual compensation of the Non-executive directors, expressed in euros, according to the firm's size (based on their assets). Columns 1, 3, 5, 7, 9 and 10 represent the amounts expressed in euros. Columns 2 and 6 represent the proportion of fixed and variable remuneration (respectively) over the total remuneration (9). While columns 4 and 8 associated to the fixed and variable remuneration per capita (respectively) illustrate the respective proportions over the total remuneration per capita (10).

	Fixed		Fixed/capita		Variable		Variable/capita		Total (9)	Total/capita (10)
	€ (1)	% (2)	€ (3)	% (4)	€ (5)	% (6)	€ (7)	% (8)		
Large	2.048.676	76%	120.510	76%	652.500	24%	38.382	24%	2.701.176	158.893
Medium	812.389	86%	94.620	81%	134.908	14%	21.598	19%	947.297	116.218
Small	308.182	81%	57.114	84%	70.616	19%	10.757	16%	378.799	67.871

**Panel D** - Annual compensation of the Non-executive directors, expressed in euros, according to the firm's size (based on their sales).

	Fixed		Fixed/capita		Variable		Variable/capita		Total	Total/capita
	€ (1)	% (2)	€ (3)	% (4)	€ (5)	% (6)	€ (7)	% (8)		
Large	510.808	94%	36.486	94%	31.518	6%	2.251	6%	542.326	38.738
Medium	1.109.627	78%	136.062	75%	311.327	22%	45.415	25%	1.420.954	181.477
Small	364.050	84%	56.733	86%	68.179	16%	8.956	14%	432.229	65.688

**Table 10** - Descriptive statistics concerning the type of industry

The following tables present a summary of the sectorial groups analysed, including the number of observations and its representation in percentage terms.

**Panel A** - Descriptive statistics in terms of industry

Firms were categorized into 6 different groups, fully described below.

Sectorial Group	N° of firms	%
Others	12	35,3%
Industrial	8	23,5%
Utilities	5	14,7%
Media/communication	4	11,8%
Construction	3	8,8%
Sports	2	5,9%
<b>Total</b>	<b>34</b>	<b>100%</b>

**Panel B - Firm's characterization according to their sectorial group.**

This table fully describes the firm's composing our sample, as well as the kind of industry where they are inserted.

	Sectorial Groups						Total
	Construction	Industrial	Media/ communication	Sports	Utilities	Others	
Company	Martifer Mota Engil Soares da Costa	Altri Cimpor Corticeira Amorim Inapa Jerónimo Martins Portucel Ramada Semapa	Cofina Impresa Media Capital ZON	SCP FCP	Brisa EDPR GALP PT REN	Glantt Ibersol Imobiliária Grão-Pará Lisgráfica Novabase Orey Antunes Reditus SAG Gest Sonae SumolCompal Toyota Caetano Vista Alegre	
N° of companies	3	8	4	2	5	12	34
%	9%	24%	12%	6%	15%	35%	100%

**Table 11** – CMVM recommendations: degree of compliance

Out of the 55 recommendations, column (1) reports the number of recommendations “adopted”, column (2) reports the ones considered as “not applicable” (N/A) and column (3) the “not adopted”. Columns 4 to 6 represent the proportion regarding the total number of recommendations.

<b>Firm</b>	<b>Adopted</b>	<b>N/A</b>	<b>Not adopted</b>	<b>Adopted (%)</b>	<b>N/A (%)</b>	<b>Not adopted (%)</b>
	(1)	(2)	(3)	(4)	(5)	(6)
Altri	39	6	10	71%	11%	18%
Brisa	43	8	4	78%	15%	7%
Cimpor	46	6	3	84%	11%	5%
Cofina	37	6	12	67%	11%	22%
Corticeira Amorim	38	4	13	69%	7%	24%
EDPR	48	3	4	87%	5%	7%
FCP	36	5	14	65%	9%	25%
Galp	49	3	3	89%	5%	5%
Glintt	36	2	20	65%	4%	36%
Ibersol	45	2	8	82%	4%	15%
Imobiliária Grão-Pará	23	16	16	42%	29%	29%
Impresa	45	7	3	82%	13%	5%
Inapa	47	4	5	85%	7%	9%
Jerónimo Martins	45	5	5	82%	9%	9%
Lisgrafica	35	12	10	64%	22%	18%
Martifer	46	3	6	84%	5%	11%
Media Capital	42	6	7	76%	11%	13%
Mota Engil	37	7	11	67%	13%	20%
Novabase	40	7	9	73%	13%	16%
Orey Antunes	44	6	5	80%	11%	9%
Portucel	46	4	5	84%	7%	9%
PT	41	6	9	75%	11%	16%
Ramada	38	6	11	69%	11%	20%
Reditus	41	8	6	75%	15%	11%
REN	47	5	3	85%	9%	5%
SAG GEST	39	6	10	71%	11%	18%
Semapa	44	7	4	80%	13%	7%
Soares da Costa	46	5	4	84%	9%	7%
Sonae	52	2	1	95%	4%	2%
Sporting	39	7	9	71%	13%	16%
SumolCompal	40	5	11	73%	9%	20%

Toyota Caetano	38	2	15	69%	4%	27%
Vista alegre	36	6	14	65%	11%	25%
ZON	48	6	1	87%	11%	2%

**Table 12 – Correlation Matrix**

	Feefloat	Independent	Leveldebt	Log (Assets)	Log (Pay)	Log (Returns)	Log (ROCE)	Recommendations
Feefloat	1	0,198	0,013	0,344	0,329	-0,043	0,250	0,228
Independent	0,198	1	-0,091	0,119	0,317	0,020	0,404	0,330
Leveldebt	0,013	-0,091	1	-0,008	-0,084	-0,037	-0,020	0,089
Log (Assets)	0,344	0,119	-0,008	1	0,392	-0,259	0,164	0,639
Log (Pay)	0,329	0,317	-0,084	0,392	1	-0,117	0,473	0,499
Log (Returns)	-0,043	0,020	-0,037	-0,259	-0,117	1	-0,037	0,026
Log (ROCE)	0,250	0,404	-0,020	0,164	0,473	-0,037	1	0,077
Recommendations	0,228	0,330	0,089	0,639	0,499	0,026	0,077	1

## Appendix 2 – Results from the estimated regressions

Generally, all the estimated regressions were tested in three different ways: the first including the total remuneration *per capita* (Total Pay), the second including exclusively the fixed remuneration *per capita* (Fixed Pay) and at last, considering only the variable component *per capita* (Variable Pay). As so, along the next tables it will be possible to observe values for these three tests, using different dependent variables.

For all the regressions tests, the respective tables will incorporate the correspondent estimated coefficient (defined as “*coef.*”) and the p-value. For this last one, it is possible to observe an additional symbol: \* means significant at 1%, \*\* significant at 5% and \*\*\* significant at 10%.

**Table 13** – Performance, size and the Remuneration Committee Structure

Reports the results from the regression estimated on section 3.1. The first column contains the independent variables earlier described in this work: returns, assets and the proportion of independent members on the Remuneration Committee (defined as “*Indep.*”).

		<b>Total Pay</b>	<b>Fixed Pay</b>	<b>Variable Pay</b>
<b>Returns</b>	Coef.	-0,122	-0,130	-1,357
	P-value	0,653	0,631	0,001 *
<b>Assets</b>	Coef.	1,617	1,877	2,128
	P-value	0,022 **	0,007 *	0,022 **
<b>Indep.</b>	Coef.	6,260	6,441	-3,109
	P-value	0,211	0,171	0,393
<b>Constant</b>	Coef.	-30,000	-33,917	-46,150
	P-value	0,059 ***	0,027 **	0,014 **
<b>F-statist.</b>		0,048 **	0,018 **	0,07 ***
<b>R<sup>2</sup></b>		0,229	0,280	0,325
<b>N° Obser.</b>		34	34	34

**Table 14** - An alternative perspective for performance - ROCE

This table shows as an alternative to the equation earlier estimated on section 3.1, introducing the variable *ROCE* as a *proxy* for the firm's performance.

	<b>ROCE</b>	<b>Assets</b>	<b>Indep.</b>	<b>Constant</b>	<b>F-statist.</b>	<b>R<sup>2</sup></b>	<b>N° Obser.</b>
Coef.	-0,187	1,603	4,357	-28,237	0,176	0,154	33
P-value	0,932	0,042 **	0,376	0,099			

**Table 15** – The Independent Non-executive's Remuneration

Reports to the regression estimated on section 3.1.2. where the dependent variable is the remuneration earned per non-executive director, considered as independent.

	<b>Returns</b>		<b>Assets</b>		<b>Indep.</b>		<b>Constant</b>		<b>R<sup>2</sup></b>	<b>N° Obser.</b>
	Coef.	P-value	Coef.	P-value	Coef.	P-value	Coef.	P-value		
<b>Total Pay</b>	-0,366	0,117	2,962	0,001 *	2,248	0,627	-60,449	0,001 *	0,260	34

**Table 16** – The industry effect

Reports the results from the regression estimated on section 3.2. The first column contains the independent variables earlier described in this work: returns, assets and the proportion of independent members on the Remuneration Committee (*Indep.*). The results associated to the dummy variables were not included, however, it should be noticed that a control by industry was performed.

		<b>Total Pay</b>	<b>Fixed Pay</b>	<b>Variable Pay</b>
<b>Returns</b>	Coef.	0,017	-0,007	-1,674
	P-value	0,967	0,986	0,000 *
<b>Assets</b>	Coef.	1,144	1,467	1,762
	P-value	0,094 ***	0,027 **	0,089 ***
<b>Indep.</b>	Coef.	3,882	4,023	-2,22
	P-value	0,404	0,352	0,536
<b>Constant</b>	Coef.	-18,65	-23,795	-39,717
	P-value	0,281	0,149	0,062 ***
<b>F-statist.</b>		0,002 *	0,000 *	0,056 ***
<b>R<sup>2</sup></b>		0,585	0,614	0,421
<b>N° Obser.</b>		34	34	34

**Table 17** – The impact of the Level of Debt

**Panel A** – Evidences the estimated results considering the Equation 6, for the 34 listed companies composing our sample, where *LevelDebt* represents the level of debt exhibited per company.

		<b>Total Pay</b>	<b>Fixed Pay</b>	<b>Variable Pay</b>
<b>Returns</b>	Coef.	-0,130	-0,137	-1,345
	P-value	0,633	0,613	0,000 *
<b>Assets</b>	Coef.	1,615	1,875	2,130
	P-value	0,025 **	0,008 *	0,024 **
<b>Indep.</b>	Coef.	6,143	6,332	-2,926
	P-value	0,230	0,188	0,433
<b>Level Debt</b>	Coef.	-0,0002	-0,0002	0,0004
	P-value	0,055 ***	0,069 ***	0,024 **
<b>Constant</b>	Coef.	-29,941	-33,862	-46,242
	P-value	0,06 ***	0,030 **	0,016 **
<b>F-statist.</b>		0,095 ***	0,041 **	0,017 **
<b>R<sup>2</sup></b>		0,231	0,283	0,331
<b>Nº Obser.</b>		34	34	34

**Panel B** – The same regression was estimated, including exclusively 32 observations, in order to exclude the *outliers*.

		<b>Total Pay</b>	<b>Fixed Pay</b>	<b>Variable Pay</b>
<b>Returns</b>	Coef.	-0,244	-0,223	-1,290
	P-value	0,317	0,316	0,000 *
<b>Assets</b>	Coef.	1,047	0,933	2,249
	P-value	0,060 ***	0,064 ***	0,028 **
<b>Indep.</b>	Coef.	5,980	5,367	-3,335
	P-value	0,196	0,198	0,369
<b>Level Debt</b>	Coef.	0,164	0,150	0,000
	P-value	0,212	0,208	0,998
<b>Constant</b>	Coef.	-18,350	-15,323	-48,201
	P-value	0,145	0,177	0,021 **
<b>F-statist.</b>		0,027**	0,027**	0,022 **
<b>R<sup>2</sup></b>		0,325	0,324	0,336
<b>Nº Obser.</b>		32	32	32



**Table 18** - The impact of the multinational status and ownership structure

Illustrates the results obtained from Equation 7. The first column contains the independent variables earlier described in this work: returns, assets, the proportion of independent members on the Remuneration Committee (*Indep.*), the ownership structure variable (*freefloat*) and an additional *dummy* variable illustrating whether or not a firm belongs to a multinational group (*multinational*). Controls by industry were also performed.

		<b>Total Pay</b>	<b>Fixed Pay</b>	<b>Variable Pay</b>
<b>Returns</b>	Coef.	-0,006	-0,022	-1,676
	P-value	0,985	0,949	0,000 *
<b>Assets</b>	Coef.	0,483	0,857	1,865
	P-value	0,278	0,048 **	0,128
<b>Indep.</b>	Coef.	4,469	4,723	-2,458
	P-value	0,220	0,167	0,506
<b>Mutinational</b>	Coef.	6,772	6,602	-1,377
	P-value	0,085 ***	0,082 ***	0,715
<b>Freefloat</b>	Coef.	0,060	0,040	0,005
	P-value	0,340	0,501	0,966
<b>Constant</b>	Coef.	-11,696	-17,480	-40,701
	P-value	0,351	0,143	0,084 ***
<b>F-statist.</b>		0,001 *	0,000 *	0,000 *
<b>R<sup>2</sup></b>		0,691	0,710	0,424
<b>N° Obser.</b>		34	34	34

**Table 19** - Firms with exclusively fixed-based pay

Reports the estimated coefficients related to Equation 8, considering a reduced sample of 26 firms. In this case, the dependent variable relies exclusively on the fixed remuneration earner per non-executive director on the Board.

		<b>Total Pay</b>
<b>Returns</b>	Coef.	0,260
	P-value	0,597
<b>Assets</b>	Coef.	0,198
	P-value	0,802

<b>Indep.</b>	Coef.	5,115
	P-value	0,363
<b>Mutinational</b>	Coef.	7,487
	P-value	0,125
<b>Constant</b>	Coef.	-6,343
	P-value	0,712
<b>F-statist.</b>		0,009 *
<b>R<sup>2</sup></b>		0,686
<b>N° Obser.</b>		26

**Table 20** - Remuneration Committee with exclusively independent members

Reports the estimated results regarding Equation 9. The main focus will be to understand whether or not a Remuneration Committee fully composed by independent members, represents a significant aspect regarding the non-executive's compensation packages. The variable "*IndRemCommittee*" represents a dummy variable which assumes the value of 1 if a corporation has an exclusively independent Remuneration Committee and 0 if not. The control by industry has been already executed.

		<b>Total Pay</b>	<b>Fixed Pay</b>	<b>Variable Pay</b>
<b>Returns</b>	Coef.	0,126	0,105	-1,702
	P-value	0,709	0,753	0,000 *
<b>Assets</b>	Coef.	0,684	1,026	1,842
	P-value	0,173	0,035 **	0,110
<b>Mutinational</b>	Coef.	6,995	6,804	-1,149
	P-value	0,094 ***	0,091 ***	0,765
<b>IndRemCommittee</b>	Coef.	3,020	3,082	-0,262
	P-value	0,249	0,322	0,931
<b>Constant</b>	Coef.	-13,559	-18,861	-42,043
	P-value	0,339	0,168	0,064 ***
<b>F-statist.</b>		0,000 *	0,000 ***	0,100 ***
<b>R<sup>2</sup></b>		0,67	0,69	0,417
<b>N° Obser.</b>		34	34	34

**Table 21** – The *Logit* model

Shows the results regarding Equation 10, where the probability of having solely fixed based remunerations was calculated.

		<b>Total Pay</b>
<b>Returns</b>	Coef.	0,880
	P-value	0,023 **
<b>Assets</b>	Coef.	-0,376
	P-value	0,316
<b>Level of debt</b>	Coef.	-0,0003
	P-value	0,008 ***
<b>Freefloat</b>	Coef.	-0,012
	P-value	0,654
<b>IndRemCommittee</b>	Coef.	-0,026
	P-value	0,983
<b>Multinational</b>	Coef.	-0,115
	P-value	0,941
<b>Constant</b>	Coef.	8,651
	P-value	0,212
<b>F-statist.</b>		0,170
<b>R<sup>2</sup></b>		0,262
<b>N° Obser.</b>		34