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The remuneration of business managers:
characteristics and effects on strategies and results
of the enterprise

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Abstract

The thesis provides an overview over the great variety of theories concerning the correlation between the remuneration of managers and the overall performance of the companies of which they manage and shape the future.

The work wants to underline the strong effect that the CEO of a company can have over company's life, and to clarify the importance of remuneration as an instrument to attract retain and motivate top managers in their guiding role. This objective is not trivial since the manager is invested with the power of taking important decisions on the behalf of the entire company, and therefore of all his internal and external stakeholders, acting substantially as an agent. Consequently, he should protect and act in the interest of his principals but, in this activity, he could be tempted to enact opportunistic and self-interested behaviours to have higher personal returns.

At this point, an effective remuneration structure is fundamental do deter these behaviours and induce managers to keep all stakeholders' interests into consideration while taking important decisions. According to most important theories, a balanced remuneration structure, that include both fixed and variable form of remuneration is the starting point for creating an effective instrument for stakeholder to align the managers' objectives to their own interest.

Compensation is not the only a tool to attract, retain and motivate managers, but it's clearly an important, and increasingly visible, part of executive talent management, and decisions about how company leaders are compensated offer shareholders and other stakeholders a window on corporate governance.

The research carried wants to provide a picture of the Italian panorama of the remuneration policies and best practices and by underlying trends in the solutions adopted.

The work wants to empirically test the correlation and effectiveness of these policies. The analysis is based on a panel of listed companies on the FTSE MIB and Small Cap index and proposes a correlations analysis among the remuneration structure of CEOs of these companies and some indexes that depict the strategic choices and financial performance of the companies.

1. Introduction

The compensation of top managers has long been at the centre of a debate in experts' discussions.

Remuneration is a fundamental lever for impacting individuals' motivation and performance. This is even more the case for leaders and executives, given the numerous implications and multiplicity of directions affected by their decisions. An uncompetitive compensation package may, for example, not be able to perform the function of attracting, retaining, and motivating beneficiaries adequately.
On the other hand, an excessive high remuneration raises questions of internal equity that are not easy to solve, and can have a negative impact on the company's reputation.

This issue related to an excessive top managers retribution, has therefore been a key point in discussion on the theme and the 2008 financial crisis has revived the tone, focusing the discussion on the efficiency and effectiveness of the remuneration packages and on the ethical question of the amount of the latter.
Despite the considerable remuneration that the managers of large, listed companies receive, they were at the centre of the greatest bankruptcies in history; that was a clearly signal that the remuneration was not adequately structured.
The debate has therefore focused not only on the total amount of remuneration but also on the composition of the remuneration and its effectiveness in aligning managerial interests with stakeholder one and in inducing a better financial performance.

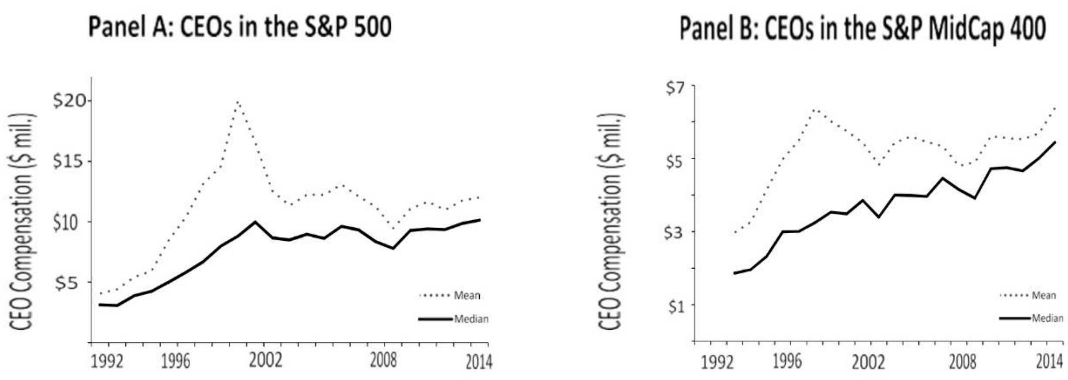


Figure 1: CEO compensation over time

As shown in the figure, the compensation of top manager has changed over the years in Lange enterprises and mil-Low cap enterprises.
While in the Large cap companies the increase in the total welfare of top managers with respect to the employee one is mainly due to big outliers or star, the discrepancy between CEO's and employee pay of Mid and Low capital enterprises has constantly increased over the year.
Even If after the financial crisis the world expected that this gap between the remuneration of top management and other employees, which grew exponentially in the 80s and 90s, would decrease, this didn't happened and, on the contrary, in the 2000s, this differential remained stable.

In the light of all these considerations, the idea that executive compensation should follow its own rules, which are independent of workers' remuneration policies, has affirmed and strengthen over time. This increasing attention toward top executives' remuneration has led to a reinforcement a of that area of governance that oversees the determination of the compensation package of top management.

The definition of compensation package for top managers is a complex and articulated problem that include and takes into consideration many internal and external factors.
The compensation packages include many different forms of payment, both fixed and variable that are aimed to reach various goals and induce different behaviour in the executive decision of top manager.
The aim of the thesis is to explain the compensation elements that compose the CEO and top executive's remuneration, trying to give an overview about existing theories and explanation that have tempt to interpret trend and evolutions in compensation policies.
The first part, consisting of three chapters, has a theoretical and cognitive purpose.
After the introduction, the discussion begins with chapter 2, cantered on the corporate figure of the Chief Executive Officer, which is/is the executive and decision-making head of a company and the Board of Directors.
The third chapter describes the structure of CEO compensation, how it is determined, and which factors can influence it.

The fourth paragraph presents the main managerial theories applicable in the context of listed companies; among which the "Agency Theory" and the "Rent extraction Theory" assume particular relevance. Here the thesis addresses the fundamental point in the matter of "Moral Hazard", arising from the circumstance that the administrator does not bear the consequences of his actions - concluding for the adoption of "incentive contracts" for the purpose of aligning interests between Principal and Agent.

Finally, the fifth and sixth paragraph propose an overview over the regulatory panorama on the theme of executive remuneration in Italy and in Europe, illustrating the main corporate documents that have been fundamental in the collection of the data at the base of the regression analysis subsequently proposed.

In addition a second part of the thesis analyses the link between management remuneration and company performance in a sample of Italian companies.
The second part consists of one chapter and develops the empirical analysis of the data. The Chapter 7, entirely devoted to the empirical analysis carried out, first clarifies the subject of the research carried out and subsequently describes the methodology followed for the selection and processing of the collected data: it describes the sample used, the variables chosen, and the model adopted.
The pay of the Chief Executive Officer of each company is studied, subdividing the overall remuneration package into fixed components, bonuses, and equity-based components, and evaluating the existence of some form of sensitivity between remuneration plans and performance in terms of ROA, ROE, Ebitda and other indexes.
Finally, a paragraph containing concluding remarks sum up the most important considerations.

2. The governance

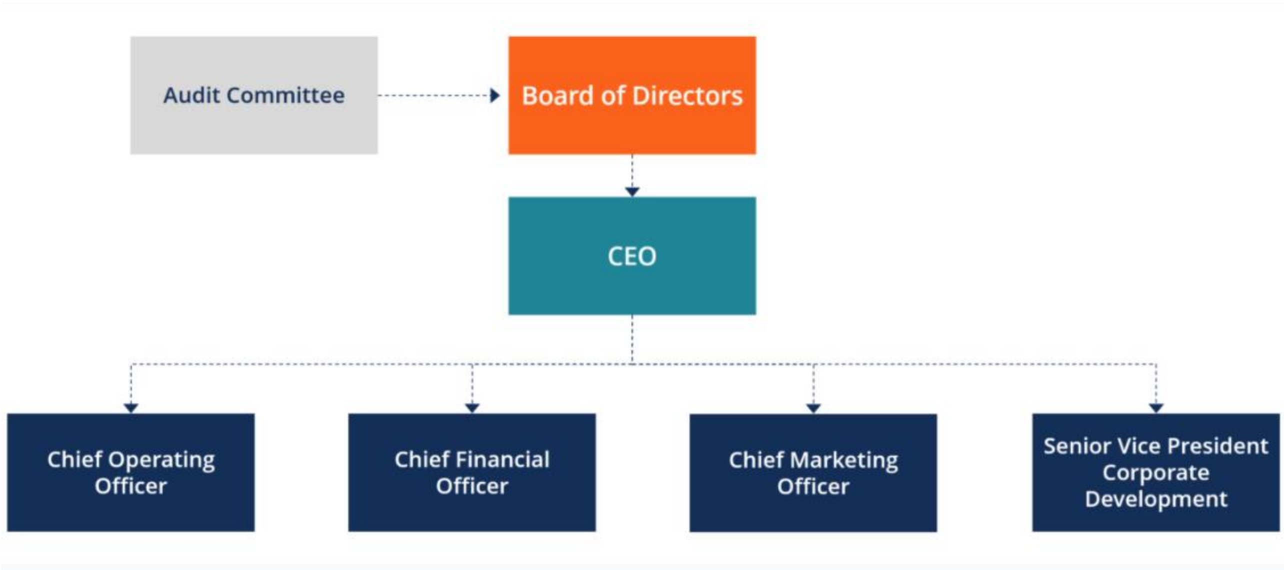


Figure 2: The structure of main actors in a company

2.1. The CEO

Among the different profiles that figure in company's organization chart, that of the Chief Executive Officer (CEO) assumes a fundamental importance for the performance of the business activity.

The CEO represents a sort of connection between the inside (the organization) and the outside (society, economy, technology, the market and consumers) and his role is therefore the one to integrate these two realities in which the enterprise is involved.
He is responsible for performance and results obtained, which on the one hand have to withstand the comparison with competitors and on the other hand must be in line with the requests made by others external stakeholders.
CEO's actions and decisions are more impactful than the actions of anyone else in a company; it's estimated that a significant 60% of a company's market value is attributed to its reputation, and the CEO is a fundamental figure in building and shaping that reputation.

2.1.1 Role and responsibilities

Due to his public nature, the CEO is usually considered as being the face of the company. Establishing and clarifying the roles and responsibilities of the CEO position is a key point to fully understand the dept of the impact that this figure has on the company performance and results under all aspects (financial, economic, reputational…). The effect that a mismanagement of the CEO can have, makes clearer to the reader the importance of an effective remuneration policy.

Among the main CEO's duties, figure:

1. Leadership, developing strategic objectives and direction

The CEO is responsible for leading the corporate strategy, setting objectives, and deciding the organization's short and long-term goals. By setting out clear objectives, the CEO helps employees and the BoD to better understand upcoming expectations for business growth, both in the short and long-run. After setting vision and objectives, the CEO must make crucial decisions and entail actions to ensure its implementation; an effective Chief Executive Officer should drive company strategy, lead the top team, and fulfill shareholder expectations.

2. Draw and implement proposed plans

CEOs must decline the general strategies and mission in more concrete and short-term plans that must be aligned with both their short-term and long-term objectives previously defined. The collaboration from all company members in critical in order to ensure an effective implementation of plans and bring to maximizing profits, increasing shareholder value and improving company position in the market: for this reason, is important that the CEO can effectively communicate the approach he intends to adopt to the company.

3. Communication and Public relations

The previous point is highly connected to the communication abilities of the CEO. Successfully running the business is simply not enough for the CEO to become an asset for the communications function. The business's primary representative, must be considered credible, authentic, empathetic, and transparent to have a positive impact con company reputation since key audiences need to believe that the person in charge of the organization is a capable individual who will take decisive action to steer the company in the right direction.

4. Budgeting, forecasting, and accessing risks

Among the CEO roles there are:

- to implement the Corporation's annual corporate budget, and to report on the achievement of objectives contained into it.
- to assist the Board with policy development and risk analysis.
- Set a yearly budget to allocate capital in consideration of factors like net income, cash flow, and the valuation they wish to achieve. With the help of the CFO, CEOs then consider variables such as industry fluctuations in calculating potential expenses, revenue, and profitability for the upcoming year.

5. Communicating with the Board of Directors

- The CEO role is to ensure the Board has access to necessary information that can bring it to take important business decisions through regular board meetings. Pressure on chief executives to perform in ever decreasing time frames makes it essential that the CEO and the Board work closely together. Communication between the board and the CEO is therefore of extreme importance, and transparency is the key for an effective relationship. A good CEO plays an important role by keeping an direct line of communication, placing a high value on Board input, and promoting the belief that management and the Board is working toward common goals.

6. Evaluation and Tracking company performance

The CEO must be provided with information about revenue growth, gross profit margins, and cumulative sales that can provide him with company insight. These data can then be used to shape further key performance indicators (KPI), to guide necessary adjustments and help the company meeting its new targets.
In addition, monitoring and interpreting the external environment is crucial to help the company withstand outside forces and progress towards its long-term goals, to continually improve company position in the market.

7. Establishing working culture

A positive working environment should be a priority as well as company values, visions, and goals. Thanks to a productive working culture and a clear set of company values, the CEO can better deliver consistent and high levels performance across the whole company. By maintaining a positive and ethical working climate and fostering a culture that promotes ethical practices and encourages individual integrity, the CEO can attract, retain, and motivate top-quality employees at all levels.

2.2. Board of Directors

A board of directors (B of D) is an elected group of individuals that represent shareholders; typically meets at regular intervals to set policies for corporate management and oversight. Every public company is legally required to install a board of directors while nonprofit organizations and many private companies, despite they are not required to, may name a board of directors. The structure, responsibilities, and powers given to a board of directors are determined by the bylaws of a company or organization: it generally determines how many board members there are, how the members are elected, and how frequently the board members meet.

The BoD has three main roles:

- Nominating the top management and the CEO: choosing the right Chief Executive officer is the key task for the board of directors.
- Advising management on different topics including strategies and operation decisions.
- Overseeing management to assure that shareholder's interest is protected against bad management and fraud

The Board is composed by:

- Chairman: he is the head of the board and provides leadership to it. The BOD votes and elects the chairperson who can coincide or not with the company's chief executive officer. The choice has different managerial implications and objectives that will be discussed in the following chapter. The role of the Chairman is to ensure the properly functioning of the BoD.

Among other roles, he regularly reviews the Committee's performance, helps in the recruitment of new members, and most important, ensures that the organization is managed effectively by providing support and supervision to the chief officer.

The Chairman is also assisted by a series of directors that can be distinguished in:

- Executive Director: that takes active participation in the company's management, business operations, sales, and finances. Being the company employee, an executive director is a part of the board and even gets a salary for the company: his experience within the company adds value to his position.
- Non-Executive Director: A non-executive director doesn't belong to the organization but is a part of the board. External directors present an objective and third-person perspective: such directors provide critical opinions and advice and are fundamental in giving voice to stakeholders outside a firm. On the other side they can lack of engagement and interest in their role, or they may be less informed about the company, due to their low experience and involvement.
- Managing Director: A managing director is an individual elected by the company's executive directors to manage, guide, and monitor business functioning.
- Other designations: Vice Presidents, CFOs, treasurer, zonal head, vigilance chief, audit chief, etc., are some other designations common to a BOD.

Due to the Board control and overseeing role, his composition and the relationships that exist among his members are important factors that can affect the control and power balance between the former and the CEO. The number of members, their relationship with the company and other variables of board composition have impact on his ability to act as an intermediary between shareholder and manager and to exert control over the latter. It Is therefore functional to this thesis to examine briefly how all the previously named aspect of a board structure differently influence the company performance.

First, in terms of composition, a greater proportion of non-executive directors can be beneficial for the enterprise; since they do not have ties with the internal managers, differently from the executive director, it is more difficult, in this case, for a conflict of interest to arise and, hence, their conduct of control is considered more credible and reliable.

For what regards the size of the board, the opinion of the experts is conflicting. On the one hand, some of them state that a larger board increases business performance and stress the attention on the fact that a wide board is a shield against attempts of the CEO to dominate - or otherwise exert a strong influence – over the board. In this sense a larger Board guarantee a further push towards the independence of this body from the underlying levels (management).

On the contrary other researchers point out that greater board size implies slower decision-making and lower reactivity in situations requiring speed. In addition, a larger Board tends to inhibit critical interaction between board members and, in general, to bring problems in terms of decision making.

At support of this view, some researcher advocate that the risk of free-riding by administrators increase with the size of the board: administrators, in fact, bear the totality of the costs related to CEO’s monitoring, while they "get" only a fraction of the benefits associated with such activity - and that fraction is reduced as the number of directors increases. This situation makes them less interested in carrying out action that may be costly for them, causing an effectiveness reduction in the Board control mechanism.

2.3 Board committees

Certain board issues are of such a complex nature that they demand substantially more time than a board can commit to during one or two board meetings. Due to this problem, the BoD can establish committees to which it delegates specific matters to maximize efficiency**.**

These dedicated committees have time for addressing specific issues and the board expects them to conduct due diligence, be thorough and timely in pursuing their responsibilities and present comprehensive information in a concise manner.

Essentially, a committee provides expert advice and counselling to the board. However, the committee’s suggestions still need to be approved by the board, and they are not obligated to go with this advice.

Committee members should be selected based on their experience and skills. In general, each board member should serve on at least one committee, but it is not common that he is part of more than two.

The following are some of the important committees of the Board, but just the first three ones are compulsory in the Board structure:

- Audit Committee: his main roles are to evaluate the integrity of the financial statements of the Company, the compliance with regulation and the effectiveness of internal audit function and internal control of financial reporting.

- Nomination Committee: The primary role of the Nomination Committee of the board is to assist the board by identifying possible directors and make recommendations on appointments to the board of the senior executive managers. In making recommendations on board appointments the Board should always try to maintain a balance of skills and experience among the board and its committees. In addition, succession planning for the board is a matter which is devolved primarily to the Nomination Committee, although the committee's deliberations are reported to and debated by the full board.
- Shareholders Grievance Committee
- Risk Committee
- Corporate Governance Committee
- Corporate Compliance Committee

Figure 3: Board Committees

The remuneration committee

As stated in the introduction, the failing of major corporations has caused an increasing upset in the marketplace and has induced shareholders and institutional investors to take a deeper interest in remuneration issues than they have in the past, and even to become activists. The extra scrutiny of remuneration issues by shareholders and others exerts increasing pressure on boards to put together competitive and fair remuneration packages. This attention toward remuneration practices has brought the need to establish an ad hoc committee whose work is to develop an appropriate reward policy that attracts and motivates executives to achieve the long-term interests of shareholders.
To be effective, the committee needs both to determine the organization's general policy on the remuneration of key management personnel (executives and directors) and specific remuneration packages for each executive director.

In more general terms, it must provide oversight of the management's decisions concerning the performance and compensation officers of the Company.
The size of a remuneration committee depends upon the needs of the company, but usually consists of at least three members. Committee members typically serve for a term of a couple of

years, which can often be extended, and it is often lead by a committee chairperson. The committee, which usually meets on average from six to eight times a year, needs time and therefore experience to fully understand the mechanisms related to remuneration management, to arrive at technically precise decisions. It should be noted that, apart from the specific moment at which the Committee discusses remuneration of the CEO, the latter participates in all meetings of the Committee

The Remuneration committee recommend the Board about the remuneration packages of the Company's Managing and Executive Directors, including all elements of remuneration package (i.e., salary, benefits, bonuses, perquisites, commission, incentives, stock options, pension, retirement benefits, details of fixed component and performance linked incentives along with the performance criteria, service contracts, notice period, severance fees etc.) and the Committee shall send to the Management Board, for approval, the proposals on remuneration for managers.

In addition to determining executive salary and benefits, the committee also typically manage other areas related to compensation. This includes the development of incentives, terms of executive employment, and guidelines for performance reviews. It is also common for the group to determine an annual goal target for the executive team. Finally, among in the committee's duties may also be included the determination of other procedures such as administration of pensions and terminating employees.

It should then be clarified to the reader that the main function of the Committee is not to determine levels and pay structures, rather it consists in the definition and strengthening of strategies related to remuneration and in the observation of which of these strategies is pleasing to managers and other employees.

2.4 CEO Duality

In the previous chapter is emphasized the debate around the possible effects of increasing the number of outside directors in the boards; an equally important and related issue is the so called "CEO Duality".

The duality CEO is a governance practice that consist of the union of two professional figures of the Executive Board: The Chief Executive Officer (CEO) and the Chairman of administration.

The presence in the company a unique person at the head of both the management body and the head of the control body has created a wide debate in the literature, especially for what regard the effects of this practice on the performance of enterprise and for this reason has been considered fundamental for the thesis purpose to briefly address the issue.

The practice of entrusting the CEO also the presidency of the Board of Directors was often adopted in the past but has been widely criticized in recent years. Among these, some impute to the CEO duality the fault of poor business performance and a slow response to the needs of strategic changes.

According to some theories, this CEO duality can establish strong, unambiguous leadership, by consolidating two of the most prestigious offices in a company: thanks to the clear presence of this unique authority figure that clarifies decision-making, stakeholders are often reassured. Those who are favorable to the double assignment CEO-Chairman of the Board of Directors believe that the concomitance of the roles allows the company to follow a clear and unique direction, allowing the CEO to give the company a clearer strategic address and more rapid decision-making, avoiding those deadlocks that may cause effectiveness reduction to the company's strategic moves. Another important aspect of duality is that the chairman of the board, as an insider, has more knowledge specific to the sector in which the company operates compared to a colleague who did not have any internal contact with the company; compared with the latter, the commitment and the involvement of an insider is generally stronger.

On the other side opponents believe that entrusting to a single subject these fundamental roles mean to provide the leader with an unequivocal discretionary power that could expose to opportunistic behavior (theme that will be discussed in the following chapters). In addition, the division of roles can assure more autonomy and independence to the top corporate bodies, allowing the company to avoid conflict in performance evaluation, compensation setting, recruitment of directors and gives the possibility to make more objective the evaluation of corporate and BoD performance. The fundamental principle underlying this composition is accountability; if you have strong independent directors, a separation of the Chair/ Chief executive role will safeguard accountability. An opinion widely held is that separating the role of chairman from chief executive- would secure a board sufficient power to challenge CEO dominance.

At the lights of these considerations is not possible to draw a definitive conclusion in addressing this issue; the numerous factors involved make it clear that a firm would have to base their decision on the dynamic existing among executive management and the board members.

2.5 Conclusion: who decide the CEO compensation structure

The compensation of the CEO, both for its size and for the key role that the CEO holds, is an extremely delicate theme and has been explored by several studies.
The remuneration package definition is a complex process that must consider many factor (that will be discussed in detail in the following chapters) and is deeply influenced by the composition of the organs in charge of his setting.

The Board of Directors is the main guarantor of the alignment between the interest of managers and that of shareholders. The control the board can exercise decreases the ability of the CEO to influence the process that determines the compensation: it is therefore necessary that the Board is in possession of certain prerequisites, suggested by the best practices, so that it can adequately fulfil its control function. Among these the degree of independence, in its formal and substantial sense, plays the most crucial role in reducing the influence power of top management and makes monitoring easier.
An additional important element to establish a balanced level remuneration structure and to increase the effectiveness of controls over top managers' actions, is the presence of a remuneration committee.
This practice is extremely widespread among listed companies; charging the committee of the choice of type and structure top management compensation has the scope to avoid that manager can define their own compensation, giving priority to personal interests at the expense of value creation for the enterprise. Although all the most relevant decisions on maximum compensation managers of the company are taken by this committee, his members are not in charge to perform other activities such as market study - to compare the different remuneration paid to CEOs by companies in the sector - or propose new incentive plans.
These tasks are normally carried out parallelly, by the human resources function in collaboration with accountants and consultants. It should also be highlighted that the initiatives and suggestions

coming from the human resources department are usually approved and reviewed by the company's top management before being forwarded to the appropriate committee to propose a scheme for the structure of manager's remuneration.

The underling figure simplify the process of compensation determination.

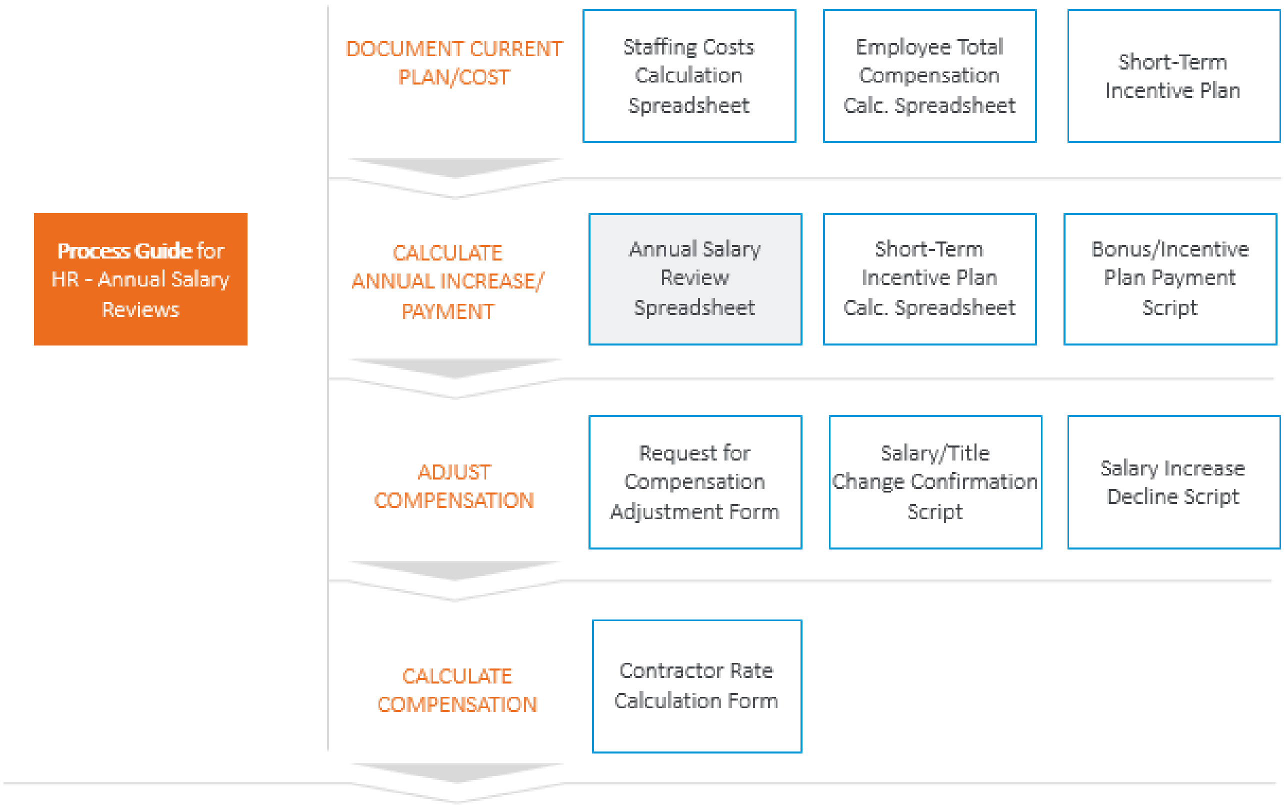


Figure 4 – Steps in the definition of managers' and CEO's the remuneration policy

3. Executive compensation structure

In the previous paragraph has been already mentioned the role of the remuneration of the chief executive officer as a strategic management tool available to the Board of Directors. The remuneration system of top managers allows the company:
to attract and retain competent executives,

- to influence their behaviour, incentivising them to develop strategies that create value
- to modify or reinforce the corporate culture.

Achieving these objectives, however, mainly depends on three aspects of the remuneration policy:

- The total amount of the remuneration: it represents for the director the total of the expected benefits for the position and represent the total cost incurred by the company to remunerate his agent.
- The relationship between remuneration and performance. The total amount of the remuneration is not in itself sufficient to direct the behaviour of the administrator to pursuit value creation for the company but it necessary a relationship between remuneration and performance realized. Two important factors to be considered are the "intensity" of the link between remuneration and performance and the parameters used to evaluate the results which the remuneration is linked to. In fact, a remuneration policy characterized by a low degree of intensity (e.g., small additional compensation) will not be able to guide the behaviour of the administrator. While a mistake in identifying the right performance indicators it can not only incentivize behaviours that do not favour the creation of value, but it can also lead to destructive conduct.
- The architecture of the package. In addition to the previous considerations, the composition of the remuneration package, that is the relative weight assumed by each component of the remuneration, is a fundamental aspect to be considered because it allows to minimize costs and maximize benefits both for the company and the executives.

The remuneration instruments that compose the remuneration package can be categorized into different types based on the form in which they are disabused or based on the relationship between the amount of the remuneration and performance indexes.

Considering of the nature of the fee, it is possible to discern the monetary remuneration (consisting of all remuneration paid in cash) from the non-monetary one that include all forms of remuneration other than money. The first category includes wages, monetary bonuses, pensions, and the golden parachutes in money, while the second includes the instruments of equity, options, and fringe benefits.

In addition, a second classification is possible. Although there are also very significant differences in remuneration policies of executives according to the companies and economic sectors to which they belong, in the large part of the salary packages it is possible to distinguish, based on the link between remuneration and performance, two components:

1. The "fixed remuneration" constituted from the set remuneration paid after a certain period (usually a year) and regardless of the performance. In the "fixed" component it is included in the basic remuneration established by the shareholders' meeting (base salary) but also pension plans, severance indemnity and fringe benefits:

- Base salary: is the fixed part of the salary, paid I cash.
    - Contractual agreement: pensions and severance payment, post retirement agreements.
    - Other Benefits,

2. The "variable remuneration”. The variable remuneration is that part of the remuneration which, established based on rules defined in advance, is paid upon the achievement of agreed objectives. In summary while the fixed remuneration rewards the effort, the variable component remunerates the result. The variable part of remuneration can be delivered in cash (Annual bonuses linked to mainly accounting performance measures) or trough financial instrument (Stock and Stock options).

3.2 Fixed components

The fixed component of remuneration is generally proportional to the professional specialization and role covered in the organization and by the required responsibilities and therefore reflects technical, professional, and managerial skills.

The levels of the fixed component of remuneration shall be determined in relation to the specificity of the company and its risk profile, to make the position attractive to managers and maintain talents with the professional characteristics required for the Company.

3.2.1 Base Salary

The determination of the CEO's base salary is usually obtained through benchmarking. The compensation is determined through a two-phase analysis: first using a very broad and general market survey on the CEOs remuneration that is refined trough second research with a higher degree of detail, limiting the field of analysis to companies that operate in the same sector and with similar revenue stream.

Although the percentage of basic salary over the total remuneration has been progressively decreasing in recent years, the CEOs seem to keep this component in particular consideration. This phenomenon is mainly to the fact that:

- The fixed salary represents a risk-free component of the remuneration that is not linked to any kind of performance evaluation or obtained results and therefore it results particularly appealing for risk free actors (as managers)
- Usually, it involves a yearly percentage increment, despite small, along all the contract lifespans.
- It represents the fixed parameter for the calculation of variable pay component: since bonus and pension found can frequently are calculated as a percentage of base salary.

3.2.2 Benefits

The remuneration package is complemented by certain non-monetary benefits that form an integral part of it. CEOs, and in general all senior executives and some hierarchical level receive private benefits, called fringe benefits, which can be added up to traditional monetary remuneration. Examples of benefits granted to managers may be the use of telephone corporate, car, plane, education services for children, soft loans, life insurance policies, social security plans, insurance (which also includes the so-called D&O Liability policy), accommodation and food vouchers.

3.2.3 Golden parachutes

In addition, top executives often are provided with supplemental retirement plans (SERPs), which can assume different forms depending on the years of employment with the company or on the corporate performance. Retirement plans are generally difficult to be quantified because they are rarely published because they concern a period of CEO life when he is no longer employee of the company.

Retirements pans have often been criticized because of this lack of transparency together with the conspicuous entity of the remuneration and have been considered the last legal form of "ghost compensation".

3.3 Variable Components

The variable remuneration is that part of the remuneration which, established based on rules defined in advance, is paid upon the achievement of agreed objectives. Variable remuneration shall recognise and reward the objectives assigned and the results achieved and shall be determined in accordance with parameters providing for risk weighting systems and effective results.

Despite extensive literature on remuneration, the way to best incentivize executives remain an open question.

According to some experts, this objective can be obtained by creating a higher pay sensitivity by awarding managers with these forms of variable remuneration (bonuses, stock awards, and options).

In theory, higher pay sensitivity would create greater incentives for CEOs to do what is best for their company, because the CEO’s wealth is more closely tied to changes in company performance. In other words, the better the company performs, the higher the value of the CEO’s wealth gets.

For these reasons, the variable remuneration represents an important motivational lever: it is defined to stimulate, direct, and enhance people's behaviour. For top management, who has the power to directly affect the business, the variable part is directly connected to the results of the company in order to strengthen their motivation in focusing their efforts on business growth.

On the other hand, many experts in the sector declare that this type of remuneration creates a payoff asymmetry since the CEOs faces unlimited gains but limited losses. This is due to the fact that the variable remuneration is granted when a certain standard of performance is reached and increase with the level of fulfillment of the objectives set, while it does not involve a form of punishment for mismanagement. This phenomenon may lead executives to take on excessive risk as their compensation sensitivity increases. All the criticism related to the form of variable remuneration are explained in major detail in the following chapters.

The variable part of the compensation is logically subdivided in remuneration plans into two components an annual component and a medium to long-term component.

3.3.1 MBO (Management by Objectives)

It represents short-term variable remuneration and is a tool aimed at ensuring the achievement of yearly objectives functional to the development of the overall corporate strategy.

In fact, the presence of a short-term remuneration is necessary to encourage directors to carry out the necessary actions in the short term, which represent the declination of the strategic plan for the single financial year.

As part of remuneration policies, the short-term incentive system for CEO represents a tool to differentiate excellent performance and to avoid any form of automatic and fixed recognition.

To build a variable remuneration plan that can effectively incentive the managers and the CEO to pursue performance improvement, it must:

• be based on quantitative and qualitative variables with a direct link to company performance, as well as to strategic objectives and sustainable success, consistent with the company's risk management policy.

• ensure the quantitative significance of the variable component with respect to fixed remuneration.

• avoid the construction of excessively complex mechanisms which are difficult to communicate and manage.

3.3.2 LTI (long term incentive)

The share of the CEO's remuneration package related to the long-term variable incentive is represented by the long-term remuneration. The target incentive is a variable percentage of the fixed annual salary, that can vary from the fixed percentage thresholds up to a maximum of in cases of overperformance. This type of incentive is usually presented in the so called "Long-Term Incentive Plan" that is (in most of the cases) a three-year plan that illustrate the provision mechanism of the bonus (in different forms) against the achievement of performance objectives aligned with the Strategic Plan.

One of the main purposes of the medium-long-term variable system is to retain and encourage management to pursue the company economic and financial results in the interests of shareholders, thus aligning its objectives. Long-term remuneration tools reduce the asymmetry between shareholders and directors that are typical of immediate remuneration tools, discourage fraudulent behaviours and stimulate the creation of sustainable value for society.

The long-term variable remuneration component has, therefore, the scope of:

• stimulating the company's ability to create value through the rewarding of key resources at the achievement of industrial, strategic, and business nature objectives.

• ensuring the achievement of economic and financial objectives in a medium-to-long-term sustainability framework.

• strengthen the motivational drive of its beneficiaries in pursuing strategic objectives provided by the Business Plan.

- aligning managers’ interests with those of the various stakeholders.

• attracting and motivating resources by rewarding them at the achievement of target results in order to foster performance culture.

• developing and strengthening policies for the retention of key corporate resources, enabling

their sense of belonging.

3.3.3 The objectives

Despite the composition of the objectives and the time horizon, that characterize the incentive plan in the short and long term, are different, the attribution logic is similar and will now be described.

To address the issue is important to firstly examine the requisite that an incentive plan should possess to be effective. Firstly, it is necessary that the objectives set by the company for the directors’ efforts and that represent the benchmarks for the variable remuneration, meet the requirements of operability, adequacy, and verifiability.
In other words, the goals must be easily translated into activities, must have an adequate degree of difficulty, and must allow for evaluation of the effective commitment made by the actors.

Therefore, a variable remuneration system to be configured as an incentive system must meet the following pre-requisites:

- the objectives must be negotiated or in any case shared.
- must be reachable according to a criterion of normal predictability.
- there must be the possibility for the worker to influence the objective.
- the amounts recognized must constitute an appreciable percentage of the annual RAL.

In determination of the objectives, it is essential to take into consideration not only the “plan of exercise", but the overall strategic plan horizon, to incentivize the directors to engage in conduct aimed at creating value sustainable for society in the medium to long term.

The different measures according to which the CEO’s performance is evaluates can be classified and give rise to different standard metrics

- budget standards: the bonus plans are linked to measures of performance based on the company's annual budget objectives.

• standard prior year: bonus plans are related to growth and / or growth improvement of specific margins (such as EBIT) or indicators (such as profit per share) to respect with previous year values.

• discretionary standards: the performance objectives are set directly by the board of administration, and therefore are the result of subjective evaluations.

• standard peer groups: bonus plans in which the performance measures they are determined by a comparison with other companies of the same sector or of the same market.

• timeless standard: the standards are set as a percentage of one specific performance measure (for example 15% of the return on capital invested).

The objectives to which the bonuses are related concern both the capital aspects and other qualitative aspects of management, which are nevertheless essential for operation of the organization. In particular, the leverage parameters concern:

• Dimensional development, measured by indicators such as revenues for new customers, products, or channels.

• Sound financial position, understood as both level of indebtedness and as composition of assets and liabilities; in this case the position is important Net Financial and Gross Operating Margin.

• The value of the company, measured by indicators on management quality and market capitalization, such as Market Value Added (given by the difference between the market value of the company and the invested capital)

• The economy, which includes income and assets that influence the characteristic management; among these figure indicators such as ROE, ROI, the Profit Margin and Total Assets Turnover.

• The effectiveness of services as process quality is measured by indicators as the default rate, the number of returns, the times of evasion and in general all parameters that measure customer satisfaction.

• The reduction of Risk rate, both internal and external, that prevent the proper functioning of the structure; The effectiveness of the risk management can be detected trough indicators such as the risk occurrence rate, the quality and timeliness of reporting, the law compliance.

In addition to the just listed accounting and financial measures, other non-types of financial indicators could be considered: individual performance, the achievement of strategic and / or operational objectives, such as increasing production capacity or reduction of delivery times. The incentive plan gives clear definition of the single objectives underlying the plan, with the explicit indication of their percentage impact: all these information are then presented to the public in the remuneration report.

The system, for the purposes of accounting and paying out, provides for weighting calculations on the achievement of the individual group objectives. Within each range, defined on each of the objectives, the final value will define the percentage of pay outs associated.

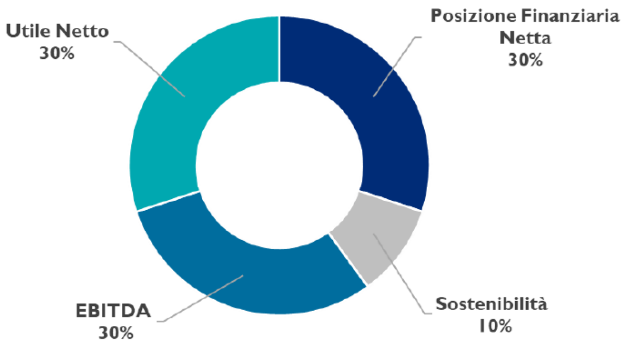


Figure 5 - Objectives' composition in an MBO from ACEA Remuneration Plan

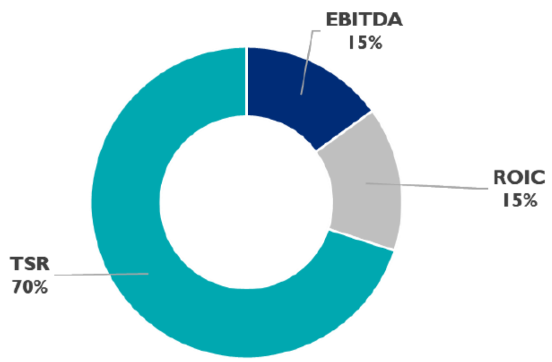


Figure 6 - Objectives' composition in an LTI from ACEA Remuneration Plan

3.3.4 The structure

In this paragraph it will be illustrated in major detail the correlation mechanism that companies adopt to determine the amount of variable compensation that should be corresponded to managers and CEO at the light of the performance obtained.

The system usually provides for an access threshold, normally set as a percentage of a given performance standard: no bonus is paid out until this threshold is reached. When this threshold is reached the CEO receives a minimal bonus, often represented by a fraction of the target bonus. Then there is the so-called bonus cap, that is a ceiling on the bonuses achievable by the CEO, generally determined as a percentage or multiples of the target bonus.

The area between the performance threshold and the bonus cap is the so called "incentive zone": performance improvements are matched by increases in bonuses achieved and an algorithm (the incentive strategy) links the result achieved to the bonus accrued.

That most frequently used threshold level is the 80/120. According to this method the CEO doesn't receive any bonus until his performance reaches at least 80% of the set standard, and the maximum bonus limit is set at 120% of the bonus performance standards. However, there are several other relationships that establish values different, such as 90/110, 95/100, 50/150, 80/110, 90/120, 80/140. Over the maximum threshold, the bonus is no more related to performance increase, but the remuneration committee establish an amount of remuneration (express as percentage of fix remuneration) in these cases of “overperformance”.

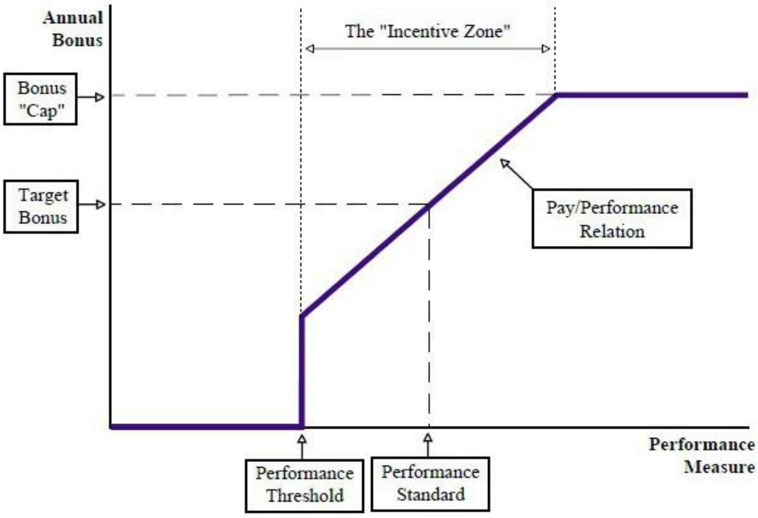


Figure 7- Scheme of a variable remuneration plan

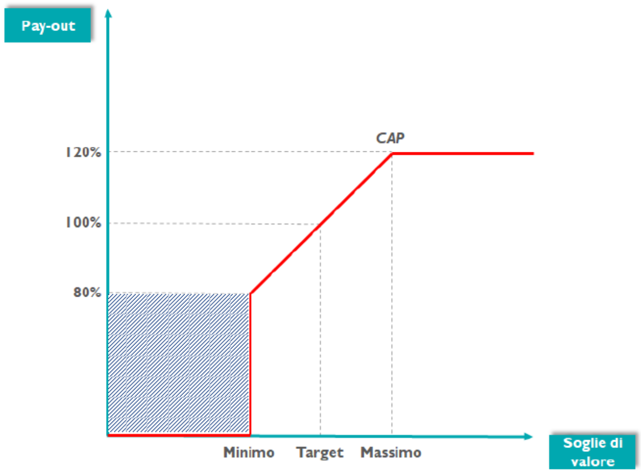


Figure 8 - Example of variable remuneration plan from ACEA Remuneration Plan

As said before, the bonus is linked to the achieving of some company results and, in many cases, multiple measures are considered to quantify the fulfilment of the set objectives.

Finally, these bonuses are granted through the observance of two strategies. On one side the company should evaluate accurately the incentive strategy: it must carefully assess the relationship between costs, that is, bonuses paid to managers and the benefits deriving from improvement of the performance of the society.

On the other side the disbursement strategy assumes an equal importance: bonuses accrued in each year rarely are disbursed in full during the same period. One part, deposited in a funds remains, in fact, to ensure the future sustainability of the results obtained; the size of this fund changes depending on the weight that the company attaches to the strategies of incentives and loyalty.

3.3.5 Form of variable remuneration

The way in which the CEO remuneration, especially in its variable component, is provided can vary based on Board choices. During the analysis of remuneration policy of Italian companies, different remuneration structures have emerged. Most of them provide nearly all the amount of the remuneration in cash form, but a percentage of the set taken into consideration has shown a different structure, that involved the use of other form of remuneration here presented.

Stock

Often CEO and managers are provided with a component of equity holding, among their compensation packages. The CEO, being in this way owner of a percentage of the share capital of the company, would feel immediate effects on the variable part of his remuneration and on his wealth. in this way, the manager even if acting operating with the self-interested intent to increase the value of his shares would increase not only its wealth, but also that of shareholders.

The attribution of shares it would allow the administrator to be loyal and incentivize him to put in place behaviours aimed at creating value for society in the medium-long term period. For this reason, equity holding is considered one of the best ways to align CEO and shareholder interests, trying to overcome the egoistic behaviour that characterizes the principal-agent relationship intercutting among these parties.

In addition, stock grants assume particular relevance in promoting a long-term view in managers' decisions: in fact a stock return, in a particular period, boosts the CEO's income not only in that period, but also in all future ones. Since the CEO is risk averse, it is efficient to spread out the reward for good performance (or punishment for poor performance) across all future periods – including post-retirement – to achieve consumption smoothing.

Stock Options

A stock option is a financial contract that gives to the person who holds it, the right, but not the obligation, to buy or sell a certain number of companies shares at a predetermined price of exercise (strike price) established over a set period or on a certain date.

The options granted to the employee are technically Call options, as they grant the right to acquire the securities within a given time interval (option expiry) and at a given price (strike price).

The employee who receives the offer of options, usually at an exercise price equal to or lower than the market price, can realise a capital gain if at a time after the time of the assignment of the options, the price of the security exceeds that of exercise. Otherwise, the options lose all value.

They are characterized by following elements:

- the strike price, which is fixed at the time of assignment of the par option, below or above the value of the action, thus affecting the incentive profile, and it can be indexed.
- the grant period the stage in which the company grants its employees the right to acquire a certain number of shares within a predetermined future time frame and at a predetermined price.
- the vesting period, that is, the period from the offer of the stock option to the beginning of the period for the exercise of the right of option and which can be represented by a time interval or by the achievement of certain performance or budget objectives.
- the exercise, the stage at which the right of option is exercised.
- lock-up period, which allows the company to avoid speculative behaviour on the part of the beneficiary.

Stock option plans aim to tie a part of the salary to the performance of the stock on the market, thus stimulating managers to increase their productivity to improve the efficiency and profitability of the group.

In fact, if the share prices increase in the period from the granting phase to that of the exercise, the employee will have the advantage of acquiring the shares at the original price, thus achieving a potential gain given by the difference between the two values.

The concept behind stock option base compensation it is to give risk averse CEOs incentives to take risk, to increase the stock price, and therefore their remuneration. It should be emphasized that stock options "remunerate" only the increase in the value of shares and not the "total" return on shares.

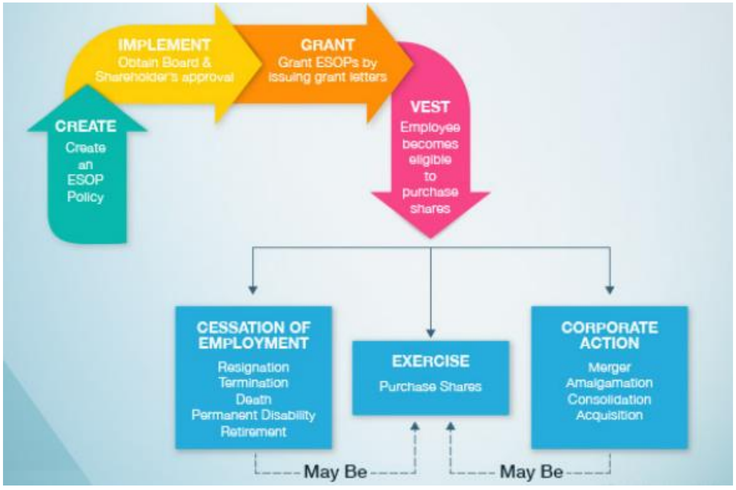


Figure 9: Process of Stock option issuing and exercising.

Debt

As explained, in a levered firm, an equity-aligned manager may undertake a risky project even if it is negative-NPV, because shareholders benefit from the upside but have limited downside risk due to limited liability. Anticipating this, creditors will demand a high cost of debt and/or tight covenants, to the detriment of shareholders.

A potential solution to such risk-shifting is to compensate the CEO with debt as well as equity. Such debt is referred to as “inside” debt, as it is owned by the manager rather than outside creditors.

Inside debt yields a positive payoff in bankruptcy, proportional to the recovery value. Thus, it renders the manager sensitive to firm value in bankruptcy, and not just the incidence of bankruptcy – exactly as desired by creditors. Indeed, debt-aligned managers reduce firm risk, as measured by the firm's distance to default or its credit rating (Inside debt can thus reduce the cost of raising external debt, to the benefit of shareholders.

3.3.5 Criticism to bonuses.

The linear relationship that models the variable part of the remuneration has the advantage of being simple and inducing directors to conduct aimed at a constant improvement of company performance, but also presents some disadvantages.

First of all, if the remuneration paid increases simultaneous with the performance achieved by the company, there can be an incentive for managers to enact behaviours aimed at maximizing results in the short term at the expense of company interests in the medium to long term.
In addition, using simple measures to determine appropriate pay for performance can be tricky because financial metrics and annual share price gains are not always a fair measure of how well an executive performed his role, since these indicators can be influenced and affected by many other external factors.
Evaluations of executives' performance is not easy: they can be unfairly penalized for one-time events that might hurt performance in the short term but that is not under the manager control. It is therefore of maximum importance that the board of directors is able to create a balanced set of measures that assess the CEO's effectiveness in executing his responsibilities.

3.4 Malus and claw back clauses

In line with a growing demand from stakeholders for more transparency in remuneration policies, and with the increasing pressure toward more responsible remuneration policies, many companies have provided for the introduction of the malus and claw back clauses for the roles with a higher impact on the company business.

This choice guarantees to the company the right not to disburse short-term variable incentive remuneration (MBOs) and long-term variable incentive remuneration (long-term incentive plans) or to request the return of these components - both short and medium-term and long-term – if such components have been paid based on willful misconduct and/or negligence. Among the causes of the clause’s activation figure:

- the intentional alteration of the data used to achieve the objectives
- a conduct that is contrary to corporate or legal rules, taken in place to achieve these objectives.

4. Executive compensation theories

In this chapter I propose the two main approaches that have tent to explain on one side how the compensation packages of CEOs can be derived and on the other side how this compensation structure can affect CEO strategic decision and firm's performance. These theories also lead to different conclusions about the trend in the CEO remuneration and tend to interpret in different or opposing way the contribution of pay package components to the CEO incentive.

4.1 Rent extraction theory

The rent extraction view argues that both the level and structure of pay are decided by the executives themselves (thanks to the support of a complicit board) to maximize the amount that they can extract from their compensation packages, without causing the an intervention of active investors.

The way in which CEO can extract value can have different sources: can be linked to a misbehavior induced by a mismanagement of the compensation package or due to an higher and unpredicted cost for the company to induce the CEO behavior through it.

In addition, the rent extraction view predicts that rent extraction should occur in this way, through forms of pay that are less observable from company outsiders or that are more difficult for shareholders to estimate.

Moreover, the rent extraction is often exacerbated by the fact that, when firms compete in the managerial labor market, one poorly governed firm permitting its executives to extract rents imposes a negative externality on other firms. In fact, by improving executives outside option, rent extraction in one firm can affect executive pay (and governance) in other firms causing a potentially large "contagion "effect on the whole market.

Rent extraction phenomenon is hard to defeat and usually survives in equilibrium because companies find it costly to fire executive and are exposed to additional rent extraction from the new CEO.

Rent extraction critics, at the light of these consideration, advocate that the remuneration structure, as composed in most cases, is not able to induce the managers toward a good management but that it just represents additional cost for the firm. In addition, the value loss due to the Rent Extraction increases with remuneration package complexity, making it even harder to trace and monitor and becoming particularly obscure for external stakeholders.

Rent extraction is particularly sceptic toward the variable part of compensation since his value is harder to estimate and companies usually do not publish reports focused on the topic, making it an easier way for managers to extract value. Here are presented some criticism that Rent Extraction theory's supporters advance toward variable form of remuneration and especially toward stock options and additional benefits such as Golden Parachutes and Severance pay.

4.1.1 Stock and stock option criticism

According to the Rent Extraction theory Standard stock and option grants are not able to differentiate between stock price increases due to industry and market movement, and thus are unrelated to managers' performance, to the one cause by good and effective management of the CEO. In this way the variable component of CEO pay is simply affected by exogenous performance elements and so will not guarantee a higher utility for a risk adverse CEO.
The only way for this "pay for luck" pay structure to be beneficial for managers, is to pay more for good luck than punishing for the bad one.

Moreover, according to additional critics, stock options motivate corporate leaders to pursue short-term moves that provide immediate boosts to stock values (and therefore to their variable remuneration components) rather than adopting companies policies that will reward over the long run (short termism).
While this problem can be partially solved by setting an adequate vesting period and lock up clauses that force the executive to not exert the option for a certain amount of time, in this way fostering the long term prospective, the greater problem seems to be the excess risk taking that this form of remuneration incentive.

The main problem when considering a stock options reward system, is that this form of remuneration appears to offer great upside rewards with little downside risk.
Since the value of a stock option increases with the volatility of the firm value (difference between ESO strike price and market stock price) the executives are more incentivised in taking riskier strategies, considering that they will only gain from good results, but will not suffer the loss in case of bad performance.

The issue is related to the fact that when executives are paid in the form of stock and stock options, their mentality resembles that of stockholders. As explained before, Stockholders and executives then fully benefit from the gains but are insulated from the effects of any increase in the level of losses.

The core problem, in other words, is the one of payoff asymmetry. The process taking place is similar to the one of a game of roulette. If a person could gamble a large amount of his wealth in a game of roulette with symmetric payoffs, for example let's assume that he can either win the equivalent of the bet or lose the total bet.
Considering that the chance of winning and losing are the same, a rational, risk-averse person, as managers are, is likely not to play.
If the payoff is no more symmetrical and for example the gain on a potential winning is four times higher than the amount of the potential loss (that means that the gambler can either quadruple his bet or lose it bet), the individual becomes much more prone to play.
This asymmetry in payoffs is precisely what characterize the stock option remuneration and it is the reason that leads executives to take on excessive risk. CEOs' performance-based pay (which includes cash bonuses, restricted stock, and stock options) give them with opportunity to increase their wealth but keeping potential losses constant to zero.

Other experts also argue that executive risk-taking behaviour is exacerbated and spurred by the influence of overoptimistic shareholders. As share owners they want to sell their shares as soon as they can make a satisfying profit from the deal and are therefore interested in short-term increasing in share value. The reforms occurred during the years designed to strengthen the influence of shareholders in compensation decisions may therefore exacerbate short-term risk-taking, since shareholders themselves are interested in short term performance.

In addition, stock options may no longer provide incentives if they are deeply out of the money. This phenomenon is highly diffused and brings the necessity to lower the strike price of these previously granted ESOs (Repricing).
According to the rent Extraction the CEO and the Board can have Implicit agreements to reprice options upon a certain stock price by lowering strike prices of previously granted options, or by canceling and reissuing options at a lower strike price. This practice can hide the real value provided to the CEO by the option making option packages more valuable than reported to shareholders. Moreover, in most cases, the strike price is lowered to the current stock price, which appears to

reward executives for failure.
The concern related to the repricing and backdating of stock option, is reinforced by the fact that firms reprice is not evaluated from case to case and granted just in response to poor industry or market performance but rather is given also in response to poor firm-specific performance.

Given the assessed risk-prone characteristic of stock and stock option, many societies have chosen not to allocate financial instruments with high volatility, such as option rights or other similar instruments.

4.1.2 Golden Parachutes and Severance pay criticism

A golden parachute refers to a large financial compensation or substantial benefits guaranteed to company executives upon termination following a merger or a takeover.

Golden parachutes are essentially set to avoid moral hazard problem for the CEO during a takeover: Often executives are concerned about their job security and can be tempted to sabotage the merger through defenses actions such as poison pills. A golden parachute guarantees compensation in the event of job loss and therefore is designed to encourages executives to work for the best interests of the firm rather than being worried about own financial security.
In addition it is aimed at reducing hostile takeovers: competitors looking to acquire a company with golden parachutes for its top executives may be discouraged from engaging in a hostile takeover since they would then be in charge of paying out the termination packages if, after taking control of the company, they decide to replace the existing management team.

Rent extraction theory advocate that CEO can extract value from shareholder thanks to some practices that hide the real value of their compensation packages and, additional support for this rent extraction interpretation comes from the fact that firms frequently grant severance pay in forms that are difficult for outsiders to observe, such enhancements to pension plans not previously planned.
Moreover, critics advocate that, a part from these negative effects, severance pay may not be able to deter hostile takeover since they typically make up only a small percentage of the overall cost of a merger. CEO, knowing that their termination would give them substantial benefits, may feel little to no incentive to do a good job.

At the light of these considerations, Golden Parachutes seems to offer relatively little benefit as compared to their very high cost.
This view has been supported by the evidence that this practice is especially prevalent among dismissed CEOs compared to those who voluntarily retire and thus appears to reward CEOs for failure.

In theory, market forces – including the market for corporate control, capital markets, product markets, and the managerial labor market – create constraints on how much value destruction directors can create from rent extraction. However, the constraints from market forces can be reduced and nulled by other external and internal factors and thus permit large deviations from efficient contracting.

4.2 Optimal contracting theory and Principal agent model

the Principal-Agent model (sometimes also called Agency Theory or Economic Theory of Incentives) describes, in very abstract terms, some aspects related to the management of remuneration packages within a simple organization, that can be modeled only by two actors: a Principal (for example shareholder) and an Agent (for example a manager)

In the optimal contracting view the CEO's (or other to managements') contract are the result of a bilateral negotiation between the principal and the CEO.

The relationship between shareholders and managers presents the characteristics of the principal agent relationship, in which the second subject is the administrator of the wealth of the first thanks to the delegation of duties. The contract clauses should protect the interests of shareholders avoiding that manager take advantage of the information asymmetry that inevitably rises. Managers, in fact, might be tempted to implement some opportunistic behaviours such as adverse selection (pre-contractual opportunism), that is providing incomplete or erroneous information to shareholders about their capabilities, or moral hazard (post-contractual opportunism), that is the misconduct put in place by a subject in the execution of his contractual obligations.

The different interests of principals and agents may become a source of conflict and problems arise when the agent performs activities addressed towards divergent and / or conflicting objectives with those of his principal. This is an important issue, especially when considering companies with dispersed ownership (companies in which the shares - or shares - of capital are dispersed among many investors and economic actors). These stakeholders do not have sufficient knowledge nor is it convenient for them - to actively engage in the operational and control management of the enterprise since such an effort would correspond to a minimum percentage of the related benefits (the benefit is proportional to the percentage of ownership, therefore small).

If the owner had complete information about the activities of the manager and on investment opportunities, they could design a contract in which he defines exactly the managerial action that must be taken in all the situations, in order to have the full control over manager conduct. In reality however, managers carry out actions that are not easily observable and have better information regarding the performance of the company with respect to the owning shareholders. The principal therefore is not in the position of observing and controlling agent's actions, but can only monitor the results, which is determined partly by the work of the agent and partly by chance.

As mentioned above, the two main sources of information asymmetry are:

• Adverse selection: At the time of contract stipulation the principal has few information about the agent and has not the information to infer the cost function of the agent. In addition, in the corporate sphere, the manager tries to take advantage of his position by providing incomplete or inaccurate information about his characteristics to make himself assume. Due to this hidden ex-ante information, it is difficult for the principal to correctly understand the commitment of the agent creating the risk of hiring unqualified managers or offering excessive retribution.

• Moral hazard: As explained the contract cannot specify and describe all the actions that the agent must perform, and the principal has not the ability to observe how much time and effort the agent has exerted during his task. Opportunistic behaviour on the part of the agent in this case may thus consist of hidden ex-post actions: for example, in the business context, the manager may adopt opportunistic behaviour with which it tries to achieve personal goals (status, power, benefits...) rather than pursuing company's one. Agents can take advantage of this situation in different ways:

- Inefficient investments
- Asset transfers
- Under provision of effort

- Unethical behavior
- Frauds

To summarize, the fundamental elements that characterize the principal-agent relationship are:

- The Agent's **contribution** to the value of the organization: considering the Agent is a manager, his contribution can be the increase in the value of the company's shares due to his work, or a revenue increase. As the reader may have understood the effect of manager action over the variable taken into consideration is difficult to define and observe accurately.
- The **commitment** of the agent that is, the amount of effort that the manager put in place for contribute to the value of the organization. As we will see later, not all measurable actions of the agent are aimed at increasing the value of the organization and the model can be extended to consider this possibility.
- **Uncertainty,** that is the effect of uncertain events affecting the agent's contribution to increase in the value of the organization. In fact, the final result do not only depends on the intensity of agent's action but many other unforeseen events, depending for example on the aggregate trend in the economic situation, may affect his achievement.

To summarize the situation

- The principal wants that the Agent's contribution to company value increase (and therefore its commitment) to be maximum, but since is not able to control his actions, he therefore must motivate him adequately.
- the Agent, once hired, has interest in minimizing the cost and efforts linked to his duties. Since his actions are at least partially hidden, he is tempted to exploit the post-contractual opportunism caused by the non-observability of his actions, which allows him to pursue his interests at the expense of counterpart (moral hazard).

The model, therefore, then deals with the complex problem of motivation.
On the Principal side, contracts can be used to alleviate agency problems by aligning managers' interests with those of shareholders. Pay should be dependent on any index that can estimate the effort and the effects of actions of managers; for example, many incentive contracts use equity instruments to directly link executives' payoffs to shareholder value, that represents the principal's

main objective. In this way the principal, despite is not able to directly control managers actions and can't evaluate the level of effort he is entailing in his job, can deduce it through the evaluation of results and incentivize the effort maximization trough bonuses and other form of variable remunerations.

On the other side, the agent suffers the effects of uncertainty about the results of his commitment. In many contexts, as in the managerial one, in fact, the level of effort is not enough to be successful.
A company's profits are not just the result of new ideas or innovations introduced by the managers but reflect the economic situation and other events which are partly uncertain and independent of the managers' commitment and effort. Since a high variable component in the remuneration package makes the agent's income less stable and secure, then paying the agent with a high part of variable remuneration may mean rewarding him for good luck or punishing him for bad luck. The agent, being a risk adverse actor, does not like this risk, and the principal must raise the fixed payment to induce the CEO to accept. Since, this situation may become costly for the principal, may be better for the principal to lower the variable share of remuneration to some extent.

Here is presented a simple model that can explain in a more formal way the dynamics that characterize the principal agent model.
The model that we will deal with, consider three different levels of profit: g, m, b (good, medium, bad) and two levels of effort: H, L (high, low). To simplify, I will use dh to indicate the "disutility" associated with the H effort and the L effort.

Moreover, the model must consider the existence of a function which converts effort into profit, but which also depends on the "state of nature". The function is unknown.

$$\phi: Y, S \rightarrow R.$$

Here Y indicates the set of possible "efforts" (in the simple case we will treat, Y = {H.L}), while S indicates the set of states of nature.

Despite the relationship between manager effort and result is unknown (this is exactly the problem that constitute the core of Principal-Agent model) what we are interested in is the probability with which, at a given action of the agent, corresponds a given profit level:

- p_H^g : the probability of profit being g if the effort exerted by manager is H

- p_H^m the probability that the profit is m if the effort exerted by manager is H

- p_H^b: the probability that the profit is equal to b if the effort exerted by manager is H

and similarly:

- p_L^g: the probability that the profit is equal to g if the effort exerted by manager is L

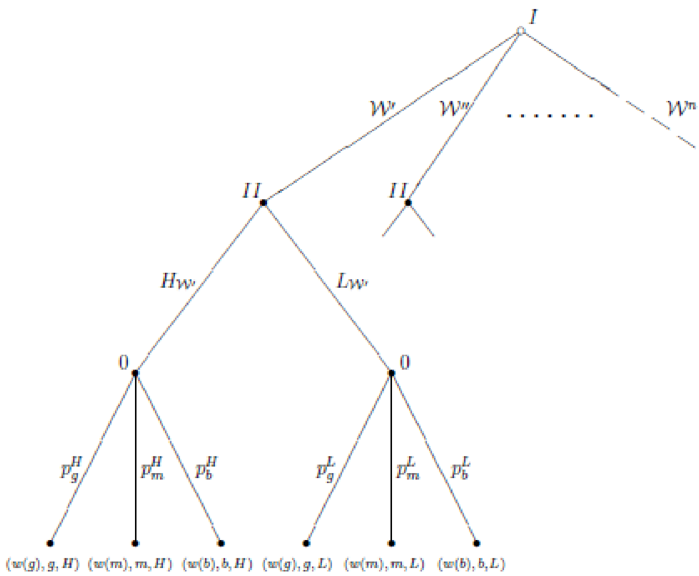
- p_L^m: the probability that the profit is m if the effort exerted by manager is L

- p_L^b: the probability that the profit is equal to b if the effort exerted by manager is L

In the case we will see (same case analyzed by Dutta, paragraph 19), it is assumed that: (p_h^g, p_h^m, p_H^b) = (0.6,0.3,0.1), and (p_L^g, p_L^m, p_L^b)=(0.1,0.3,0.6)

As can be seen, a high effort by the agent leads, on average, to a higher profit than if the effort is low.

It's convenient to use a representation of the situation with an extended game (we'll give a partial representation of it).



In figure we have indicated the outcomes.

With W we indicate the payment scheme. That is, the function that in matching of observed profit associates pay (agreed).

For example:

- in the case of fixed pay: w(g) = w(m) = w(b) = w

- in the case of pure variable remuneration: w(g) = g-f; w(m) = m-f; w(b) = b-f

We can observe that, in the case of fixed pay, all the risk is borne to the owner (or "principal"), since the principal will always gain the same wage w whatever is the final value of the firm in fact by summing the probability of all the events, he will get with probability equal to 1(cert event) the wage W. Conversely in a variable scheme chasing the risk is downloaded completely on the manager (or "agent") because his remuneration is completely dependent on firm value.

That the optimal choice of the remuneration scheme that can involve the use of a fixed wage, or a pure franchise, or an intermediate solution between the two, will depend of course the value assumed by the parameters that intervene in the model.

Principal–agent problems between shareholders and executives have been a concern and is particularly problematic since the separation of corporate ownership from control. At the beginning of the twentieth century this phenomenon has spread and has had much influence on the development of remuneration systems of managers (in the role of agents) based not only on a fixed remuneration, but on forms of remuneration that varies according to the company's performance and other types of incentives (shareholding, stock options) with the aim of limiting the opportunistic behavior of managers.
It has already been explained in the previous chapters how a compensation package can be composed and how each element of the pay structure can induce the CEO to adopt certain strategies and pursue some objectives rather than others. At the light of the previous considerations the main objective of the Board should be to set the right incentives for the CEO, and to create a balance between the incentive purposes and the risk-bearing.

The remuneration policy contributes to the achievement of this goal to reach the company strategy and the main objectives of the group through:

- Variable incentive plans with predetermined objectives, measurable and consistent with the Strategic Plan, the Sustainability Plan, and the interests of the various stakeholders. In general terms the different components of the remuneration of the CEO should be set to bring benefits (monetary and not) to the CEO in the case of excellent performance, and to penalize it in case of unsatisfactory results.
  This result can be obtained by linking the remuneration to the performance, for example by remuneration CEO with company shares. Despite the empirical evidence shows that the sensitivity of remuneration to the performance of the company is actually very low, this type of incentive could take effect if the CEO possesses a significant percentage of the undertaking's shares.
- Consistency of overall remuneration with market benchmarks, subject to annual evaluation and revision in order to ensure a constant alignment with best practices.
- Balanced pay mix, aimed at aligning the remuneration to the performance achieved with a significant percentage of the variable components linked to the medium-long term indexes (including equity instruments) for top management.
- Include an appropriate vesting periods and incentive deferrals over a period of at from three to five years.

- Adoption of claw-back mechanisms in cases of error, intent, and serious and intentional violations of laws and/or regulations. It represents another way of tying managers to the company for a medium-long period since this mechanism is aimed at recovery the variable part of the compensation that is not due, because it is obtained through malicious or culpable behavior or data that were manifestly incorrect.
- Structured engagement plans to involve shareholders, for example collecting their expectations and feedback.

Setting the proper type of compensation structure cannot adopt the same approach for every firm, but it needs to be created "ah hoc" and should reflect the risk-taking attitude of each firm. There is no absolute right solution, but many papers have tried to find possible solutions that could help avoid another event like the credit crisis. Tying executive compensation with a broader range of securities, such as a mix of stock, preferred stock, and debt has been proposed as a valid solution: this may help incentivize executives to make better decisions for the company. Additionally, it may help to set compensation hurdles on broader accounting measures, rather than focusing solely on shareholder beneficial measures like Earnings Per Share (EPS). Executive could be prevented from exploiting with their compensation components by setting time-based restrictions (restricted stock and options cannot be cashed in as soon as they vest). In summary, executives should be prevented from any type of strategy that would help them to avoid their punishment in the case of poor performance and to excessively gain from good performance that is not linked to their effort.
As stated above, the debate on executive compensation is long and complex, and sometimes even contradictory and the problems and possible solutions highlighted above represent only a fraction of the ongoing discussion.

5. Other explanation of high level of pay

Despite the explanation provided the Agent theory about the reasons underlying the amount and structure of remuneration for top managers holds true, many other external factors have exerted influence on it and may reinforce the need of an adequate compensation.

5.1 Labor market

The reader may ask himself why a company must face such difficult path in the creation of incentive for his top managers when it can simply dismiss the actual manager and hire a most reliable and competent CEO, who simply does not require such need.
What the reader does not realize is that the company who has to face the dismissal, finds himself involved in a much more complex situation. First, the narrow market of CEO put the company in an unfavorable position where it has low bargaining power. The company can't access ex ante the CEO's abilities, being therefore exposed to information asymmetry and adverse selection. Moreover, hiring a new CEO that is external to the company, means dealing with a manager that, despite his competence, necessarily has less knowledge and experience in the company that the previous manager had.
Finally, the company must pay the old CEO golden parachutes and other form of benefits, that, as explained before, could be very expensive.

This labor market landscape gives a reasonable explanation of why companies tent to spend large amount of money in compensation plans, with the aim of attracting and retaining good CEO and at the same time exerting control over their actions.

5.2 Benchmarking

The remuneration of the CEO is established by the board of directors in conjunction with a specific committee set up for that purpose and is often determined after a comparison process with similar firms in the same sector.

The benchmarking activity to define the remuneration of managers is necessary to motivate managers and for hiring more qualified managers.
If, the remuneration is higher than the average in the sector, the manager should feel the need to step up efforts to justify higher pay. According to some experts this practice will reflect positively on the results achieved by the company since the manager, with the aim of maintain high remuneration and all benefits received, will increase efforts to meet the shareholder expectations. If, on the other hand the remuneration is below the industry average, the manager should feel frustrated causing a reduction in commitment and effort to his job.
Again, the motivation and retaining of talent show to have a crucial role in the determination of pay level.
Being the remuneration of managers the result of processes of comparison between similar companies, that can be compared by characteristics and that belong to the same sector, If a CEO start to earn a pay considerably above the average, this comparison practice can induce a sort of waterfall effect and cause a rise in the CEO's compensation in other companies.

5.3 Company size

Empirical evidence shows that executive fees are usually related to company size and, consequently, to the extent of the control that managers have.

One of the explanations because of the importance of size for the determining the level of management remuneration is the fact that large companies generally need managers with skills and are willing to pay a higher price to obtain it.
The effect of firm size has been at the centre of many studies and many models have been created to define the relation among firm size and top manager remuneration.
Luca's model, that will be sum up briefly here, is proposing some conclusion and considerations that could better explain the relationship between CEO's remuneration and firm size.

Lucas Model

According to Lucas theory the CEO is considered as a factor of production different from standard employees. Therefore, the value V of the company is determined by the factors of production that are units of capital K, number of workers L (Labour), and variable T that refers to the CEO's talent.

$$V = \varphi(k, L, T)$$

For the purpose of the demonstration, supposed to have a production function that follows a Cobb-Douglas distribution:

$$V = T^{\alpha_T} * (\frac{\mathrm{K}}{\alpha_K})^{\alpha_K} * (\frac{\mathrm{L}}{\alpha_L})^{\alpha_L}$$

A CEO, with talent T, hires capital K and labour L (where w and r are the prices of labour and capital) and maximizes the surplus WT, that correspond to CEO's pay.

$$WT = \max_{K,L} \varphi(K, L, T) - w * L - r * K$$

For aim of the demonstration we need to express the Value of the firm as a function of CEO talent only. In doing this we must consider that the CEO maximize his surplus over labour and capital: in this way he obtains the optimum level of Labour and Capital. By substituting these values into the production function, and solving for V, we obtain the desired relationship between Value V and CEO's Talent:

$$V = (r^{\alpha_K} * w^{\alpha_L})^{(\frac{-1}{\alpha_T})} * T$$

Finally inserting the optimal values of Labour and Capital and the relationship (4) into the CEO pay function (3) we found the direct relationship desired

$$WT = V - r * K - w * L = \alpha_T * V$$

The model generates the qualitative prediction that CEO pay,

- V, K, L are all linear in T.
- WT is increasing in firm size because a larger firm generates more surplus.
- CEO's his pay scales linearly with firm size.

Various empirical studies confirm the qualitative prediction that CEO pay is increasing in firm. However, the quantitative prediction that pay is linear in firm size is contradicted by the data. Due to this limitation the model has subsequently been refined by other studies: the following research find that CEO pay increases as a power function of firm size, with a typical elasticity $\kappa \simeq 1/3$.

Gabix and Landier and Baranchuk, MacDonald, and Yang in their work, starting from Luca's equation, yield the qualitative cross-sectional prediction that CEO pay is increasing in firm size. However, the intuition is different: here the prediction arises because large firms hire the most talented CEOs, who command the highest wages.

Despite the model has been partially modified and refined by subsequent works, the Lucas model maintain his relevance partly because his fundamental contribution to the topic that has been at the basis for the development of other theories, and partly because of his simplicity of representation.

Has been considered interesting for the thesis purpose to show how, despite the importance of the effect of incentive scope in CEO pay determination, many other factors can influence it and that many other studies focus their attention to the analysis of these influences.

6. Policies and recommendation about Compensation

This section will examine some of the most relevant remuneration policies and best practices that have been emanated by the European Commission in recent years.

The Commission, to encourage an appropriate remuneration scheme for directors of listed companies, issued a text of recommendations (Recommendation 2004/913/EC) which Member States were invited to implement by 30 June 2006.

With this recommendation the Commission wanted to promote the adoption of an appropriate remuneration by focusing on promotion of transparency in the field of remuneration, introduction of say-on-pay voting and prior approval of share plans.

At the same scope, the commission recommends the presence of non-executive directors within the board and the establishment of a committee on remuneration which was entitled to make proposals on the remuneration of executive directors.

Within the scope of proposals there is the strengthening of shareholders' rights of shareholders and bringing modernity in Board.
At this scope, recommendations focus on the appropriateness of governance and on the importance of sharing information on remuneration policies to prevent conflicts of interest.

The principles underlying this new regulation are therefore:

• transparency as a source of confidence for investors.

• Clear and comprehensive view of remuneration policy.

• Clear and unambiguous link between the payments and the fees established in the contractual.

• Ad hoc shareholder meeting to discuss remuneration policy

• submission of the remuneration policy to the vote of the shareholders' meeting.

• knowledge of the individual remuneration of directors, both executive and non-executive, so to allow shareholders clear correlations with the performance of the undertaking.

• submission of stock option plans for approval by the shareholders' meeting.

The recommendation, on the other hand, introduces important innovations on composition elements, roles, and profiles of supervisory and administrative bodies, focusing on the need of pursuing independence and competence.

Moreover, the Committee imposes the creation of a Remuneration Communication that should be drawn up using a dedicated document, the remuneration statement, which reports the company's policy on the matter.

6.1 The Remuneration statements

This relationship can be contained in the annual statement or can be published on the company website, or it the form deemed most appropriate. In the document it must be indicated the remuneration policy that the company intends to adopt, for the following financial year and, where possible, also for subsequent financial years, the detailed rules for implementation of the previous year one, giving particular emphasis to the changes that occurred.

The remuneration report shall be divided into the two sections

The first section of the remuneration report presents:

- The company's policy on the remuneration of members of the administrative bodies, general managers, and managers with strategic responsibilities, the CEO at least for the following financial year.
- The procedures used for the implementation of the policy.

The second section is dedicated to the description of the remuneration of the members of the administrative and control bodies, the General Director and in aggregate form for managers with strategic responsibilities:

- provide a detailed representation of each of the components that forms the remuneration package, including the treatment applied in the event of termination of office or of employment.
- gives an analytical account of the remuneration paid in the reference period in any form by the company and by subsidiaries or associates, indicating any components of these fees which relate to activities carried out in periods prior to the reference period and

highlighting, also, the remuneration to be paid in one or more successive years in respect of the activity carried out in the reference year, possibly by indicating an estimated value for components that cannot be objectively quantified in the reference year.

The remuneration report shall be approved by the Board of Directors. As regards the share-based remuneration, it must be approved in advance by the shareholders at the annual meeting.

The assembly is called to establish the maximum ceiling of the assignable prizes to the directors and the factors that generate changes in the remuneration situation. The assembly must also approve each mechanism for subscribing shares at a preferential price compared to that of the market on the date on which the strike price is established.

Shareholders must receive adequate notice of what will be the content of the stock option plan and how to acquire the necessary shares before the general meeting. The costs of these operations must be explicit, and all information must be available on the website of society.

The topic has been considered relevant for the thesis purpose since the existence, at least in Italy, of a clear document that provide clear and concise explanation of compensation package, has provided the basis for the collection of fundamental information and data that are at the source of the personal correlation analysis carried out in the second part. Has therefore been considered important to highlight the structure and the aim that constitute the document on which the analysis takes his source, to better understand the investigation process conducted.

7. Personal Analysis

7. Introduction to analysis

The intention that drives the search is to find a for a relationship between remuneration of the Chief Executive Officer and Top Managers and corporate strategy and business performance.

The literature has carried out various searches to evaluate the drivers of corporate performance lighting to CEO characteristics.

Initially numerous academic contributions, focused on the analysis of the relationship between precise characteristics of the CEO and the financial performance of the company, obtaining results extremely heterogeneous.

To quote some examples, Boyd (1995) dedicated himself to examination of the relationship between duality CEO and business performance; others investigated the association between certain features of the CEO (such as the duration of the term of office, the level of education and the functional orientation) and the peculiarities of the sector in which the enterprise operates, trying to understand which subjects are better suited to manage a company in particular sectors; Carpenter and Sanders (2002), starting from the theory of the agency and the often divergent interests between principal and agent, they dealt with the analysis between remuneration of the CEO (and top management more generally) and business performance; finally, Matolcsy and Wright (2011) have tried to define the characteristics of a remunerative structure that provides results positive to the performance of the company.

In theory, the concept of performance forms the core of strategic management and empirically, most strategy studies make use of the construct of business performance in their attempt to examine various strategy content and process issues. In management, the significance of performance is clear through the many prescriptions provided for performance enhancement. Research dedicated to governance structures relationship with financial performance was highly dependent on accounting-based indicators. Some studies have adopted individual measurements (accounting-based or market-based measurements).

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examine various strategy content and process issues. In management, the significance of performance is clear through the many prescriptions provided for performance enhancement. Research dedicated to governance structures relationship with financial performance was highly dependent on accounting-based indicators. Some studies have adopted individual measurements (accounting-based or market-based measurements).
Based on the findings of the study of academic contributions on characteristics of the CEOs and of the various types of performance ascribable to the enterprises, it is considered interesting to verify the possible existence of a relationship between the remuneration structure of CEOs and financial and social performance of companies, in order to understand if some peculiarities of the subject placed at the top management and decision are able to influence the results achieved by the organization for which operates.

7.1 The dataset

This section has been included in order to provide the reader with an insight of the methodology that have been adopted and sources used in the collection phase of the work. To begin is important to make a distinction between the data related to the CEO remuneration structure and the one focused on the financial economic and social performance of the company; while for the latter some public databases exist, for the first set of variables the situation is more complicated.

On the one side the policies about remuneration disclosure of top executives vary a lot from one country to another and in some foreign countries the publication of reports on the topic is not compulsory.

The source of information has primary been a manual researched carried out by me on Remuneration Reports that many listed companies pubic on their corporate website. In the "governance section" of the page, companies usually tent to present an overview of the remuneration structure and decision process. Are, in addition, presented the figure of the CEO, the chairman and the board members, together with the CVs. Attached to the page, many companies publish some documents "Report on remuneration and remuneration paid during the financial year xxxx".

As explained in detailed before, In the European context, there have been several Recommendations of the European Commission. In 2004, the Commission issued a first Recommendation (Rec. 2004/913/EC) to promote an appropriate disclosure regime as regards the remuneration of directors of listed companies.

Each Country in the Europe area has differently adapted the indication: Italy has aligned itself to the recommendations of the European Commission in the matter of compensation, implementing it with initiatives both self-regulatory and legislative. This decree introduced, has been established for companies with listed shares to make available to the public a "Remuneration Report" that explain remuneration policies of the members of the administrative body, the Directors-General and the managers with strategic responsibilities and illustrate analytically the compensations attributed to the subjects above.

Despite this, the structure of the report and the detail reached by the reporting vary a lot from Company to company.

A different approach can be identified in foreign countries, where often the disclosure of remuneration is not officially regulated but is left to the discretionary decisions of Companies. While in Italy companies have been provided with formal and substantive recommendations for the preparation of a special document, in other counties (France Germany, USA) governments have not forced companies to public a particular document concerning remuneration policies but have just provided with an indication of the relevant information to be included in the financial statements or other mandatory documents. France, Great Britain, and the United States grant larger companies' autonomy in the presentation of corporate governance information: at present, the Supervisory Committees establish only the essential information to complete the budget communication or the information to be entered in other mandatory documents (document de référence, balance sheet and proxy statement

In Germany the interest in the governance appears to be more limited, there are no specific recommendations for an independent report and the inclusion of information in the annual budget does not include detailed information on the subject.
Due to this misalignment of policies has been complicated to find clear concise and exhaustive indications of remuneration packages for foreign companies.

All the remuneration reports considered provide a section dedicate to analysis of the remuneration of CEO by subdividing it into different section concerning Fixed Remuneration, Short term variable remuneration, long term variable remuneration, Benefits and Severance payments.
The value of the remuneration is provided both in absolute value or, for LTI and MBO, as a percentage of the fixed remuneration. In this section are also explained the criteria under which the variable remuneration is obtained.
The structure is often based on a model that assign an increasing compensation (in linear term) depending on the percentage of the target objective reached. The general objective set is often composed by subobjectives, with different weights, that cover different areas of interest. The main parameters that drive the evaluation of managers performance are related to profitability (EBITDA, ROA..) sustainability ()

I carried out a comparative assessment of the overall remuneration of the Chief Executive Officer and General Manager as part of a peer group of 25 companies both Italian and European. The criterion that has been applied for the choice of the panel has been the one to follow the benchmark that companies itself listed in the remuneration report. The analysis initially started by considering a panel of Italian companies in the Utility sector: during the development, however, it has been clear that the peer group used by these companies in order to establish the compensation level and composition was not only composed by companies in the same sector but was selected based on the following criteria:

• companies listed on regulated markets.

• sector to which it belongs.

• organizational and business complexity.

Most of the reports declare that the companies that have been considered are the one reported in the FTSE MIB index (acronym for Financial Times Stock Exchange Milano Stock Exchange Index). This index is the most significant stock index of the Italian Stock Exchange and contains, with exceptions, the shares of the 40 Italian companies, even if they have their registered office abroad, listed on the MTA or on the MIV with greater capitalization, representing more than 80% of the total capitalization and almost 90% of the turnover.

Due to this explicit comparison, it has been considerate legitimate to apply the same peer group for the thesis analysis: for the purpose some companies have been selected form the FTSE MIB index (including 40 Italian listed companies) and from the FTSE Italia Mid Cap Index composed of the top 60 companies for capitalization and that do not belong to the FTSE MIB index.

The panel has been subsequently refined by eliminating non-Italian companies since as already explained the publication of Remuneration Report is not compulsory and the research can be too demanding. Subsequently also Banks and Assurance companies have been eliminated prof the considered list since the performance evaluation for this type of company should be based on different parameters. At this point the work has been focused on the collection of data related to remuneration, from Remuneration reports and other documents provided by the companies on the corporate website.
A different procedure has been applied in the research of indexes related to performance and strategic choices. In this case, as previously mentioned, thanks to the support of Politecnico di Torino, has been possible to have access to two databases that provide information and indexes of many listed companies. Thanks to the tools provided by the DB, it has been possible to recreate the panel of companies previously considered for the remuneration data collection and to personalize the information desired for these companies. The layout obtain has been exported in Excel and arranged to fit the necessary dimension for the analysis.

7.2 Variables considered

7. 2.1 Dependent variables

Financial performance and strategic decision indicators

Before dealing more closely with the relationship between CEO pay structure and financial performance and social performance of the enterprise it is useful to briefly report the ways in which these two constructs are measured. Performance measurement has great significance in effective management of an organization and in the enhancement of the processes since only measurable process can be effectively managed. Hence, the improvement of the organizational

performance requires some measures that can help in determining the impact of the remuneration level upon business performance.
The measures of the financial performance of the enterprise can be subdivided into three subsets.

a) market-based measures.

b) accounting measures.

c) perceptive measures.

The first type of measure is mainly based on the main assumptions of neoclassical economic belief the shareholders are the most important category of stakeholder and that their satisfaction is of primary importance for destiny of the company. This first group of indicators find their prevailing origin in the stock market: a typical example is the share price (and increase in their value).

Accounting and market measures of performance mainly differ from each other with respect to the primary stakeholder whose interests they represent. While accounting measures reflect the perspective of managers, who are interested in the performance of the firm over the most recent period, market measures reflect the perspective of shareholders and potential investors, who are interested in the long-term financial performance of the firm.

Accounting-based measures of firm financial performance are the most used in the strategic management: This type of measure consists of some indicators whose take information in the balance sheet of the enterprise. Among these return on investment (ROI), return on capital own (ROE), dividend per share (EPS).
Accounting numbers are important because managers use them when making strategic decisions, and because they provide insights into economic rates of return.
However, these accounting measures are often subject to arbitrariness of manager decisions: in the specific case, the different indexes are affected the decisions of managers regarding the allocation of resources in some projects rather than in others. This means that the indicators described depend significantly on factors such as management's decision-making and entrepreneurial capacities, and therefore from internal rather than external elements.
Despite this, some experts have criticized them because accounting numbers have a strong short-term bias and may be subject to manipulation by managers.

While most researchers measure firm financial performance using either accounting or market measures, some have argued that subjective measures may also be useful in assessing a firm's financial performance. Perceptual measures are obtained through surveys and questionnaires, which make it possible to obtain subjective assessments of performance of the enterprise, the employment of the business assets or the attainment of the financial objectives compared to other competitors. The subjective performance measures can be obtained from members of an organization's top management team, who are asked to subjectively evaluate the firm's performance. Subjective measures of firm financial performance may be as valid as objective measures, such as the ones previously exposed, are not available.

In the development of this analysis, the attention has focused on a set of accounting measures according to which different Italian companies have been evaluated.
This choice has been taken for two main reasons. On the one side accounting measures are more objective and easier to evaluate with respect to perceptive measures, that may create an additional source of variance in the regression analysis that can cause distortion of data and consequently on the results.
On the other hand, the analysis has been constrained by the amount and quality of data available of public databases; ROA, ROE, ROI, EBITDA are common indexes that can be easily tracked for public traded companies.

ROA

ROA is not a perfect measure, but it is the most effective, and is largely available financial measure to evaluate company performance. This index captures the main elements of business performance, taking into consideration both income statement performance and the assets required to run a business. In this way ROA can provide a more balanced view of profitability compared to traditional metrics.

The advantage of ROA lies its ability to holistically measure business operations.
Since ROA reflects the cumulative outcome of decision making, it makes management accountable for the cumulative decisions made in the deployment of assets: if resources are used in projects that bring little value to the company, ROA will suffer. In fact, even if the manager try to artificially

improve net income the ROA will not increase proportionally, since the measure weighs net income as a proportion of assets, while on the opposite if management utilizes its assets in projects that more optimally create value, ROA will rise.
In addition, ROA also is less vulnerable to short-term strategies that can occur on income statements since many assets, such as property, plant, and equipment, and intangibles, involve long-term asset decisions that are more difficult to tamper with in the short term.

In conclusion, ROA trajectory provides insight into the quality of prior decisions and helps challenge the fundamental assumptions that these decisions were based on.
This index has been considered relevant for this analysis since, as results of previous consideration, paying attention to the trajectory of ROA, and the insights it contains, can help companies to use their resources more effectively, to generate returns over the long term.

ROE

ROE represents the income generated by the stakeholders’ money. For shareholders, ROE provides an easy way of judging profitability of their investments. However, this key point can also become its greatest drawback., in fact by focusing primarily on returns generated from equity, the view doesn’t take into consideration the impact of leverage. As such, ROE does not provide a comprehensive view of a company’s performance. As a source of financing, debt is an important element of corporate balance sheets: while it can help an organization meet its objectives, excessive amounts can be damaging. These effects, however, are not reflected in ROE as the measure does not directly factor in leverage. If, for instance, an organization were to raise an unhealthy amount of debt but manage to generate income from that debt, ROE would likely rise even though the company may have a riskier capital structure. In this scenario, increased leverage could help a company meet its short-term objectives while threatening its long-term viability given its debt exposure.

EBITDA/VENDITE

EBITDA is the most important measure of income because it is not influenced by investment policies (through depreciation), financing policies (through interest expense), extraordinary and tax policies. Since EBITDA index shows a weakness of not including depreciation on assets, it can be problematic if used to draw conclusions about a company's sustainable success. His percentage value, however, provides information on the profitability of the company in its business activities, as it indicates what remains of the turnover (that is, the money obtained from the sale of goods and services).

'EBITDA/Sales indicator expresses the true ability of the company to be on the market as it measures how much operating income it is able to generate per unit of turnover: therefore, it better measures the performance (in absolute value and compared to competitors) than other income values.

7.2.2 Independent variables

As explained before, remuneration represents an ex-ante governance tool capable of optimizing the cost of organizational factors and aligning the agent's behavior with the principal's interests.

The achievement of these objectives, however, depends mainly on three aspects of remuneration policy:

- the total amount of remuneration
- the architecture of the package.

The total amount of remuneration is, on the director's side, the total expected benefits for the appointment, while on the company's side, the total cost incurred to remunerate that person. This aspect is an important element both for directing the choice of the administrator on the subject to whom to provide his work, and for directing his behavior to the pursuit of value creation for the company.

However, the total amount of remuneration is not itself sufficient to direct the administrator's behavior towards the creation of value for the undertaking, as the key element for this is the relationship between remuneration and performance.

The final key element in achieving the objectives of remuneration policy is the composition of the remuneration package, which, by determining the relative weight assumed by each component of remuneration, minimizes costs, and maximizes benefits for both the undertaking and the directors

Base Salary

The fixed remuneration shall be determined based on the role and responsibilities assigned, considering a graduated positioning and possibly even lower than the limits defined by the references mediating national and international executive markets for roles of similar level of responsibility; and managerial complexity and may be adjusted periodically, as part of the annual process of salary review covering the entire managerial population

Pay Mix

With reference to the CEO and General Manager, the pay mix is a representation of remuneration components in the various possible performance scenarios. The remuneration package for the CEO includes a fixed component, a short-term variable component, and a long-term variable component. The last two components are usually expressed as a percentage of the fixed remuneration and their value vary based on the extent to which the performance objective are met. The pay mix takes into account, as regards the target level of the long-term variable component, a discounted value of the compensation in order to make it comparable to the other two forms of remuneration.

To uniform the data obtained from remuneration reports, the analysis that is here presented, takes into consideration the pay mix that can be obtained from a "Target performance", that means when all the objectives set are reached at the desired level.

An adequate balance between the fixed and the variable component and, within the variable, between the short-term and the long-term variable is fundamental to build an effective incentive strategy.

On the one hand, the fixed component is sufficient to remunerate the performance of the parties concerned in the event that the variable component is not delivered due to the failure to meet the performance targets; on the other hand, the presence of an appropriate percentage of MBO in order to Motivate the achievement of the annual objectives with a view to sustainability in the medium to long term, and for LTI Promote the creation of value for shareholders and its sustainability in the long term.

7.3 Considerations on the Data

Before dealing in more detailed with the presentation of variable used in the analysis and the methodologies adopted, it has been considered fundamental to present some evidence that can be summarized by the analysis of remuneration reports of the companies in the panel. The structure and distribution of data collected can justify and make the reader pert of the following choices and approximation fundamental for the analysis development. The choice of the variable to be considered in the analysis has been a result of the evidence here presented.

A problem that has come up in the data collection is that among the panel, while some companies provide detail information about remuneration describing in dept the structure of CEO remuneration (the weight of each component, the form in which these are provide, the time and conditions for the appointment of variable form of remuneration , the clauses attached to them, the positioning of the CEO remuneration toward sector CEOs, the ratio between the CEO remuneration and an employee average remuneration), other just present the mandatory information. For this reason, despite could have been interesting to develop the analysis on some aspects of remuneration, it has not been possible due to some “holes” in the dataset.

In addition to the lack of information, a subsequent selection of the aspects that could have been used in the analysis has been applied to all those parameters that does not sufficiently differ from one company to another, among these:

- Vesting Period. The LIT plan is, in nearly all the cases, created on a three annual bases. His achievement is linked to the attainment of long-term objective and while the supply is subdivided among the full-vesting period (in some cases also in a fourth year).
- The equity part of LIT is often constrained by Lock-up Periods clauses. The aim of this policy is because, as explained before, the share act as direct incentive for the management to put in place actions that can improve long term value for the company. The most popular form of contract, bound the share contribution to a one-year lock up period, during which the owner is not allowed to sell the share he is provided with.
- Lock-up clauses. A significant part of the treatment derived from incentive plans of an overall duration of five years (considering performance periods, vesting periods and deferment periods). In addition, the short-term incentive (MBO) is often subdivided into two sections. A first portion is provided as annual bonus at the end of the year, subsequently to the fulfillment of pre-established Objective to the extent to which they have been obtained.
- Deferral Mechanism: A second part of the is deferred to the following year. Despite this, not all the short-term incentive scheme in the dataset, provide for deferral mechanisms. This conscious choice has been adopted by some companies taking into account the presence of a long-term incentive scheme (and its relative weight in relation to the component fixed and short-term variable component) and the presence of a "rolling" mechanism of the long-term incentive plan which, in fact, is develops on annual assignments and with three-year vesting period and a one-year lock-up period, and finally the existence of claw back clauses.
- non-monetary benefits are largely common to all the companies a

The inexistence of a variance of these parameters among the companies in the dataset makes it impossible and insensate to perform a regression analysis between these variable and the performance level of the companies. The fact that these characteristics of remuneration package are so similar among companies of different sizes and sectors, makes them a de facto standard that does not have any impact in shaping CEO and Top Managers decisions and strategies.

Finally, some form of remuneration that could be considered in the analysis of the effects on companies' strategies and performance, despite possible, are not applied in the near totality of the cases.

- A very small part of the dataset considered provide remuneration in the form of stock option. Some companies of the panel presented stock option plan in the past remuneration reports but have deprecated them in the actual remuneration packages. For those companies that still present a stock option plan, this one is always included in the LTI plan as substitution for the stock plan. Their appointment is granted after the fulfillment of long-term performance standards set by the remuneration committee (as for stock plans). However, the number of companies in the panel that apply this form of remuneration in CEO compensation package or make this information available to the public is so derisory that is not possible, with the actual dataset, to perform a significant analysis on his effects.
- MBO are never provided in the form of share (1 case over 25): the vast majority of the company provide the variable part of remuneration in a cash at the end of the year, after the verification of the set standard measures. This makes insensate to make a distinction between Cash MBO or Share MBO.

Considering all these limitations provided by the dataset chosen, some aspects of the remuneration were available for nearly all the companies chosen and presented a significant distribution. By analyzing the remuneration report of public listed companies, it can be noticed that:

- The research has revealed that the long-term incentive, can assume the form of a cash remuneration (expressed, as for the MBO) as a percentage of the fixed remuneration or as an equity compensation. It is common to find a mixture of these two policies that provide a percentage of the bonus cash and a quota administered as equity incentive. Plan provides for the assignment of the right to receive a certain number of ordinary shares free of charge

- A particular attention is focused to the consistency of overall remuneration with market benchmarks that is subject to annual valuation to ensure constant alignment with best practices.
- Balanced pay mix, aimed at aligning the remuneration with the performance achieved with a significant impact of medium to long-term variable components (including with

instruments equity) for top management.

- Increasing attention toward Social impact.
  In a market context where the link between variable remuneration mechanisms and the achievement of social and environmental as well as economic results is increasingly widespread, The dataset considered confirm the path of greater integration of sustainability in business activities: a strategic approach represented by the progressive alignment of the performance management system with the objectives set out in the Sustainability Plan.
  An important part of the Strategic Plan is also dedicated to the sustainability of the business, in terms of development human capital, listening to stakeholders and controlling environmental impacts, aspects that contribute to mitigate environmental, social, governance and value creation risks in the medium to long term.
  Incentive plans tent to includes, together with economic and financial objectives, other goals related to the theme of sustainability.
  At the Group level, in fact, a composite sustainability indicator has been inserted, with a % weight in line with market best practices, that crosses all Business Areas.
  The ESG objectives which have been identified by analyzing the Remuneration Report of the companies considered and have revealed to be important for long-term sustainable value creation, are divided into four dimensions:
- Human resources: with particular attention to safety and health culture of employees, to training plans for the development of digital skills and the implementation of agile working policies.
- Stakeholder and territory: which looks to the involvement of local communities and listening of the populations for the shared sharing of infrastructures as well as initiatives of social responsibility.
- Integrity, accountability, and transparency: with reference to sustainability in the supply chain and the solicitation of sustainable behavior by employees.
- Environment: the most important targets are linked to the impacts of transmission infrastructure and then the new underground and submarine lines, the removal of obsolete lines (over 350 km during the Plan period) and the reduction of CO_2 emissions

7.4 Regression Analysis

7.4.1 The method

Looking back over the issues addressed in this discussion, three can be identified:

Main sections: The first, concerning the Chief Executive Officer, represents the point; the second, concerning the Corporate Social Performance, identifies the point of arrival; the third, entirely dedicated to empirical research carried out, can be the point of convergence between the two preceding parts.
The key concept expressed in this work can be summarized as follows: members of the organization are key elements for the performance of the same. The choice of the CEO as the most important corporate figure for the purposes of achievement of positive results by the enterprise is since such subject constitutes in most cases the executive and decision-making summit of the organization

Since The variable component of CEO remuneration, consisting of different systems incentive (among all bonus plans), is in almost all cases (91% in research published in 1998 by Murphy and highlighted in paragraph 6.3.2) related to accounting profit measures such as turnover, net income or EBIT and/or profit indicators based on shares (such as earnings per share) and on the return on specific items of balance sheet (such as invested capital, equity, etc. ...).

Based on these considerations it has considered relevant to demonstrate the correlation between management remuneration and corporate' performance and strategic address to provide practical evidence of the main hypothesis at the basis of the Agent Theory and other relevant theories on the topic.

At this purpose the thesis provides a regression analysis that tries to correlate in a linear way, the various indexes that estimate corporate performance and strategic decisions with variables that try to estimate composition package's structure. The Analysis has been carried out in Excel, thanks to an integrated tool provided by the platform.

The lecturer must consider that, as explained in detail in the first section of the document, the thesis does not pretend to explain most of the firm's performance through the CEO's remuneration package composition. First of all, it would be absurd to completely describe the variation and fluctuations of a performance index such as ROA, just trough the factors in analysis. Performance indexes are in greatly dependent from many factors, both internal and external to the companies and the author is conscious that the top managers' remuneration policies are just a small piece of the puzzle.

In addition to this an additional reduction in significance level has been caused by the small batch of companies considered, that is not able to protect the analysis form distortions.

Due to this the level of portion of index variance explained by the regressor/s has been set to 10-15%.

In addition, the model considers a confidence level of 95% and all the results here presented have fulfilled this requirement.

7.4.2 The Results

Hypothesis: the amount of bonuses paid to the CEO is related to financial performance of the company.

To verify the presence of a correlation between corporate performance and remuneration structure, the analysis takes into considerations different financial indicators that can depict under different aspect the performance of the company.

Statistica della regressione	
R multiplo	0,855072232
R al quadrato	0,731148522
R al quadrato corretto	0,647132435
Errore standard	3,918516995
Osservazioni	22

ANALISI VARIANZA

	gdl	*SQ*	*MQ*	*F*	*Significatività F*
Regressione	5	668,1233202	133,624664	8,702482464	0,00038333
Residuo	16	245,6764071	15,35477544		
Totale	21	913,7997273			

	Coefficienti	*Errore standard*	*Stat t*	*Valore di significatività*	*Inferiore 95%*	*Superiore 95%*	*Inferiore 95,0%*	*Superiore 95,0%*
Intercetta	2154,674758	389,8528847	5,526891917	4,59741E-05	1328,223561	2981,125954	1328,223561	2981,125954
% Fix Remuneration	-2158,509499	389,2469435	-5,545347332	4,43478E-05	-2983,676158	-1333,342841	-2983,676158	-1333,342841
% MBO	-2139,207191	392,0549806	-5,456395905	5,27756E-05	-2970,326622	-1308,08776	-2970,326622	-1308,08776
% LTI	-2147,136373	389,3391969	-5,514822012	4,70709E-05	-2972,4986	-1321,774147	-2972,4986	-1321,774147
% Cash	-1,449657747	3,515970655	-0,412306555	0,685586198	-8,903182571	6,003867077	-8,903182571	6,003867077
% Share	-2,447512254	3,972751583	-0,61607483	0,546510634	-10,86936939	5,974344879	-10,86936939	5,974344879

Tabella 1: Regression analysis between ROA and components of CEO's remuneration package.

From results, underlined in the previous table, it emerges a strong correlation between ROA and all the regressors in exam. From the output here presented it is possible to deduce that the correlation can be accepted with a confidence level of 95%, since the significance of the F statistic is 0,00038 (less than 0,05). The R squared adjusted is as well implying that a large part of the Y variance is explained by the regressors' one, the portion on ROA variance, explained by the proposed regression is 64,7%. The result is particularly impressing considering the small batch of companies considered.

Similar results have been obtained considering the ROE index, that is shown to be related to compensation structure with a significance level of 0,018.

Statistica della regressione	
R multiplo	0,787558
R al quadrato	0,620248
R al quadrato corretto	0,457497
Errore standard	16,33346
Osservazioni	21

ANALISI VARIANZA

	gdl	*SQ*	*MQ*	*F*	*Significatività F*
Regressione	6	6100,2789	1016,71315	3,811029557	0,018352313
Residuo	14	3734,944557	266,7817541		
Totale	20	9835,223457			

	Coefficienti	*Errore standard*	*Stat t*	*Valore di significatività*	*Inferiore 95%*	*Superiore 95%*	*Inferiore 95,0%*	*Superiore 95,0%*
Intercetta	4213,909	1635,083271	2,577183048	0,021929112	707,0040543	7720,81372	707,0040543	7720,81372
Base Salary	-1,2E-05	8,53204E-06	-1,448148126	0,169599502	-3,06551E-05	5,9437E-06	-3,06551E-05	5,94375E-06
% Fix Remuneration	-4218,94	1632,21518	-2,584794916	0,021607055	-7719,694889	-718,188109	-7719,694889	-718,1881093
% MBO	-4109,46	1643,440621	-2,500521604	0,025441014	-7634,288342	-584,629212	-7634,288342	-584,6292119
% LTI	-4187,34	1631,04241	-2,56727945	0,022355061	-7685,579709	-689,103613	-7685,579709	-689,1036133
% Cash	5,791697	14,88524145	0,389089866	0,703063517	-26,1339711	37,7173643	-26,1339711	37,71736432
% Share	-12,6225	16,59801067	-0,760483071	0,459582856	-48,22169847	22,9766862	-48,22169847	22,9766862

Tabella 2 : Regression analysis between ROE and the components of CEO's remuneration package

In both the regression the most significant regressors are “% of base salary”, “% of MBO” and “%of LTI”, while the way in which the payment is disbursed (cash or share) do not seems to be significant in influencing performance, since the significance levels of these regressors is higher than 0,05. This result however is coherent with the theory proposed in the previous chapters. As stated in the formulation of the hypotheses, the associations just now reported are very likely due to the fact that bonus plans, especially those in the short term, are often linked to precise financial performance indicators.

Both the regression here shown, depict a negative relationship between the performance of the company and the weight of fix remuneration in the compensation package: this result confirms major theories regarding top executives’ compensation. The two main theories presented in the thesis (both the Agency and the Rent extraction theory) in fact agree on the fact the fixed component of the remuneration, nonbeing related to performance target is not able to incentive managers in improving performance.

For what concern the variable form of compensation, the result does not confirm the ideas of the Agency theory: while this theory suggests a positive relationship between variable compensation and corporate results, the sign of the regressor %MBO, %LTI is negative in both the outputs

These findings are, on the contrary, consistent with rent-extraction theory, as CEO remuneration seems to be a tool for extracting a rent rather than a solution for agency problems. The results show a negative correlation between the results of the company and the percentage of both MBO and LTI meaning that these variable forms of remuneration worsen the performance rather than driving managers toward profit maximizing strategies.

In addition, from both the figures, it can be seen that the form in which the remuneration is disbursed is not significative in influencing the company performance (the significance level of % share and % cash in both the regressions is higher than 0,05). This result is not surprising since major theories do not agree on the effectiveness of share compensation in inducing the CEO to maximize company value but rather may tempt the managers to enact action aimed at increase share value on the short term rather than focusing on the sustainable vale creation and profitability. The result of the regressions here presented, suggest and intermediate point of view, suggesting that the weight of share or cash compensation that compose the variable remuneration is not itself able, in the linear model analyzed, to influence company results.

A similar reasoning can be applied to the variable “Base salary corresponded to the CEO and General Director”: this regressor is not significant in determining an improvement in performance since his significance level in the regression linking ROE to compensation package components is higher than 0,05. Again, this result is not completely surprising, since literature itself does not take a uniform position on the theme. The base salary is not fundamental in influencing company performance since is not granted as consequence of outstanding performance neither bound to some threshold gates but is in major part determined by external factors.
In addition, the peer group analysis that brings to the definition of the base salary of the CEO, as explained before, strengthen the reasons behind the lack of correlation between base salary amount and company performance indexes, since the variance of the base salary is distorted by the practice of unfirming CEOs’ base salary to the one of competitors’ one.

Since these regressor are proven, both in theoretical (thanks to the support of most quoted theories) and in practical terms (they do not seem to reach a sufficient significance level in the regression), not to be decisive in determining an effect over company performance indexes, it has been considered interesting to discard these regressors from the model.
Both the model, ROA and ROE, show an increase in significance if considered in a separate model with only three regressors, “ %of fix remuneration”, “% of MBO”, “% of LTI”.

Statistica della regressione	
R multiplo	0,8510492
R al quadrato	0,7242847
R al quadrato corretto	0,6783322
Errore standard	3,7412752
Osservazioni	22

ANALISI VARIANZA

	gdl	*SQ*	*MQ*	*F*	*Significatività F*
Regressione	3	661,8511995	220,6170665	15,76158127	2,8131E-05
Residuo	18	251,9485278	13,99714043		
Totale	21	913,7997273			

	Coefficienti	*Errore standard*	*Stat t*	*Valore di significatività*	*Inferiore 95%*	*Superiore 95%*	*Inferiore 95,0%*	*Superiore 95,0%*
Intercetta	2177,5654	355,9423846	6,117746925	8,86306E-06	1429,758228	2925,3726	1429,7582	2925,3726
% Fix Remuneration	-2182,334	355,4407913	-6,13979623	8,47486E-06	-2929,087423	-1435,5806	-2929,0874	-1435,5806
% MBO	-2163,296	358,9370105	-6,026951695	1,06653E-05	-2917,3947	-1409,1973	-2917,3947	-1409,1973
% LTI	-2173,6484	355,1964615	-6,119566563	8,83034E-06	-2919,888463	-1427,4083	-2919,8885	-1427,4083

Tabella 3: Regression between ROA and %of fix remuneration, % of MBO, % of LTI

This model seems to be the most promising partly due to the grater variance that the regressors can explain and partly thanks to the confirm that can be obtain from the theory.

7.4.3 Conclusions

There is considerable debate on executive compensation in both the public arena and academia.

Shareholder value models suggests that high pay can be justified either because it attracts productive and scarce managerial talent, or as ex-post reward for strong performance.

Proponents of the Rent Extraction view, however, argue that high pay, and large increases in pay, are often unrelated to performance. According to the "Rent Extraction" view, which claims that current compensation practices sharply contrast the predictions of traditional agency models, contracts are not chosen by boards to maximize shareholder value, but instead by the executives themselves to maximize their own rents.

These two theories differently explain the trend in the CEO remuneration structure and find different justification for the level of pay of the executives: on the one side, the Rent Extraction see as inefficient all the variable part of remuneration, while on the other side the Agent model provides mathematical justification for the use of stock and options as an effective motivational instrument.

The analysis carried out in this paper provides justification to both the theories. On the one side it confirms that the fix component of the remuneration, (Italian RAL) is not able itself to provide a stimulus to managers to improve corporate performance but is rather the result of a comparison effect.

On the other side the evidence presented confirm the existence of a correlation between the pay mix structure and the performance of the company, evaluated trough different parameters identifying a negative correlation between performance and variable remuneration components.

The analysis leave space for addition refinements and more detailed results can be reached by consulting a wider dataset. The estimation of regressors coefficient has been deeply affected by the scarcity of the data collected and in order to obtain a more reliable result it is necessary to obtain a wider range of information.

In addition, in a subsequent implementation of the analysis, it could be interesting to conduct the evaluation of companies' performance over a longer time horizon to trace the evolution of the effects of remuneration policies over company performance. The effect of the remuneration policies over manager strategic decision have assumed (especially in recent years) a wider time horizon: compensation packages are becoming more and more articulated by including different form of remuneration and by applying deferral mechanism over several subsequent years. The deferral of the payment has not been considered in this analysis since it would require the observation of both the remuneration composition and disbursement and the company's performance over a longer time horizon, but it could certainly be an interesting analysis to provide a more comprehensive view on the topic.

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