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Corporate governance: relationship between executive compensation and dividend policy

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INTRODUCTION

One of the most discussed issues in the field of corporate finance undoubtedly concerns corporate governance. Looking back over the economic and business literature, a univocal and shared definition of corporate governance has not yet been found, however the role recognized to governance policies is to minimize conflicts of interest and corruption within a company, favoring the efficient allocation of resources, investments and business growth.

The issue of corporate governance has begun to arouse particular interest and attention from scholars since the early 2000s, following the scandals that have affected various companies. Suffice it to mention the cases of the multinationals Enron and Global Crossing, both of which went bankrupt in 2002, or the scandal of the Italian family firm listed on Parmalat, which went bankrupt for false accounting. The occurrence of these scandals called into question the solidity of the governance systems in Italy and in the international panorama and consequently activated the action of the regulatory bodies in trying to protect investors, and more generally, the company's stakeholders.

Conflicts within a company arise due to agency problems between the shareholders, owners of the company, and the management that has the objective of managing the resources and capital of the company; usually, shareholders and management may have different interests and objectives and it is for this reason that the so-called “agency costs” arise. However, these conflicts differ according to the ownership structure of the company: in "widely-held companies", that is, in companies with dispersed shareholdings, the main conflict is between shareholders and management while in companies with very concentrated ownership structures, as in In the case of family businesses, agency problems usually arise between the majority shareholder, the owner family, and minority shareholders.

This paper aims to show how the various governance mechanisms try to resolve conflicts of interest in family and non-family businesses. Particular attention will be paid to two main governance tools: executive compensation, or the top-management remuneration package, and the dividend policy.

The first chapter focuses on theoretical considerations regarding corporate governance. The focus was placed on the main definitions of corporate governance, on agency theory and conflicts of interest and on the different governance mechanisms. Finally, the various ownership structures are described, with a focus on the family business.

The second chapter presents the dividend policy, specifically focusing on the relationship between corporate governance and dividend policy through the analysis of the *outcome*

model and the *substitution model*. Finally, the most important theoretical models on the subject of dividends are described.

The third chapter deals with the issue of executive compensation: we start with the analysis of the incentive and agency theories, then the incentive contract, the composition of the top-management remuneration package and the pay-performance relationship are described. Finally, the relationship between ownership structure and CEO remuneration is analyzed: the main empirical evidences regarding the remuneration of the CEO in family businesses are described, checking for whether the CEO is internal or external to the owner family.

The fourth and last chapter deals with the two themes, present in the second and third chapter, together. Attention is initially placed on the payout policy, specifically, the main empirical evidence regarding the phenomenon of *dividend smoothing* in family and non-family businesses will be analyzed. The relationship between executive compensation and dividend policy in family and non-family businesses is then presented, through the analysis of the empirical evidence in the literature.

1 CORPORATE GOVERNANCE: DEFINITIONS, THEORIES AND MECHANISMS OF GOVERNANCE

1.1 Corporate Governance Definitions

Governance applied to the company[1] (hence the term "Corporate") concerns the whole system of rules and institutional bodies that allow and direct entrepreneurial activity. A single globally shared definition, capable of summarizing all the main aspects and functions of Corporate Governance, has not yet been found.

According to the European Central Bank (2004) "the corporate governance structure specifies the distribution of rights and responsibilities among the different participants in the organization - such as the board, managers, shareholders and other stakeholders - and lays down the rules and procedures for decision- making". In relation to the OECD principles, Corporate Governance "involves a set of relationships among a company's management, its Board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined" (OECD, 1999).

In Italy the Preda Code[2] defines corporate governance: "Corporate Governance, in the sense of the set of rules according to which firms are managed and controlled, is the result of norms, traditions and patterns of behavior developed by each economic and legal system. . . . the main aim of a good Corporate governance system is creating shareholder value".

From an economic-financial point of view, Shleifer and Vishny (1996) with the term Corporate Governance refer to the system of rules that makes it possible to guarantee an adequate return on the capital provided by shareholders ("deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment"), thus denoting great attention to the need to solve the problems arising from the separation between ownership and control of a company. According to Zingales (1998), Corporate Governance refers to the complex set of constraints that shape the ex-post negotiation of the quasi-income generated by a company.

[1] The term enterprise essentially refers to corporations

[2] The Preda Code is the Corporate Governance Code for Listed Companies: it was drawn up by the Corporate Governance Committee and issued by Borsa Italiana in 1999, with subsequent editions in 2002 and 2006. The Code aims to optimize the reliability of listed companies through the application of an organizational model capable of effectively managing business risks and any conflicts of interest between management (directors) and owners (shareholders), between majority and minority shareholders

The fact that there is no agreed explanation regarding the concept of governance testifies to how heated the discussion is on the issue of corporate governance. Starting from the analysis of how the markets have evolved, it is possible to identify various drivers that have significantly contributed to the evolution of this debate: the constant shift from bank and private financing in favor of recourse to risk capital; the increased importance of market for corporate control (think of the wave of mergers and acquisitions carried out since the early 1980s); privatization processes; the competitive pressures of globalization; the development of new technologies. The economic-financial crises of recent times and financial scandals, in all the cases of the US multinational Enron and in Italy of the family company listed on the Parmalat stock exchange, have further demonstrated how corporate governance plays a crucial role in the economic systems in which businesses belong and compete. The corporate governance rules are therefore aimed "at reconciling the objectives of creating value for shareholders, of discipline and incentives for management, of attention to the broader interests of the company's stakeholders" (Masera, 2006). The life of a company is therefore highly connected to the evolution of the economic and financial markets, therefore "good governance" can only be defined with reference to the various stakeholders it relates to and their expectations (Salvatori, 2001). In general, among the stakeholders[3] different types of actors are identified: shareholders, creditors, employees, suppliers, institutions, trade unions, consumers and local communities.

Each category of stakeholder expresses an opinion on corporate governance in relation to its own expectations which, in some cases, can even be divergent and opposed. The concept of "good governance" emerged when the Organization for Economic Cooperation and Development (OECD) defined the "Principles on Corporate Governance"; with this document, the OECD has established certain criteria through which companies can guarantee transparency and accounting conditions capable of "assure that corporations use their capital efficiently. […] Ensure that corporation considers the interests of a wide range of constituencies, as well as of the communities within which they operate, and that their board are accountable to the company and shareholders. […] To assure that corporations operate for the benefit of the society as a whole" (OECD, 1999). If on the one hand the attention is focused on aspects more properly interconnected to the financial nature of the company, with the aim of guaranteeing the efficiency of investments, on the other hand, it was also wanted to underline the respect of the overall interests of the same business. In fact, one of the principles states that "the corporate governance framework should recognize the rights of stakeholders as established by law and encourage active co-operation between corporations

[3] Stakeholders are all the subjects directly or indirectly involved in the business activity. This definition was first introduced in 1963 by the Stanford University Research Institute.

and stakeholders in creating wealth, jobs, and the sustainability of financially sound enterprises" (OECD, 1999). Good corporate governance is therefore a shared responsibility between the various actors involved in defining the company's strategies and in the economic system in which it lives.

In relation to what has been said so far, there is therefore no single model of corporate governance but good corporate governance depends on how the different prerogatives and expectations of all the stakeholders involved are combined. From this point of view, the shareholders will be satisfied if the corporate governance is able to generate profits in line with those expected; creditors will positively assess disclosure that allows them to estimate what the business prospects are and the company's ability to "serve" its debt. Employees will evaluate governance based on the possibility of personal fulfillment in relation to remuneration, career progress, the company climate. The institutional bodies will evaluate a “good” governance limited to the observance of rules, laws and the payment of taxes due. Consumers, commercial partners and all the subjects with whom a company relates will define good governance in terms of efficiency and effectiveness.

As often happens, however, when the different expectations of stakeholders do not find a common alignment but, on the contrary, come into conflict with each other, then “good corporate governance” is required to intervene as a regulatory tool. A possible solution appears to be that of maximizing the value of the company which, not necessarily, is in line with the maximization of shareholders' profits. However, as owners of property rights, shareholders have the power to make strategic decisions to the detriment of other stakeholders in the company. Thus, one of the most discussed sources of corporate conflict in the corporate governance literature was born. If the misalignment of expectations between shareholders and other stakeholders, however, can be relevant in the short term, its duration in a long-term perspective is discussed. The Preda Code, in this sense, while identifying the maximization of shareholder value as the primary objective of the company, asserts that "in the longer term, the pursuit of this goal can give rise to a virtuous circle in terms of efficiency and company integrity, with beneficial effects for other stakeholders - such as customers, creditors, consumers, suppliers, employees, local communities, and the environment - whose interests are already protected in the Italian legal system”.

1.2 Financial systems and corporate governance

An in-depth analysis is related to how the financial systems in which companies operate influence the governance policies of the companies themselves. For this purpose, a distinction must be made between:

- Market-oriented financial systems, ie characterized by highly developed equity and bond markets, by efficient, competitive and not very concentrated banking institutions and by companies whose shareholding structure is widespread;
- Financial systems oriented towards intermediaries, i.e. having underdeveloped equity and bond markets, large banks that hold high market shares and companies whose shareholding is concentrated in the hands of a few shareholders.

There are several empirical evidences on the matter. According to Beck et al. (2002) the less developed financial markets and therefore characterized by weak legal systems, provide little protection for investors; for this reason, operating companies have serious difficulties in finding sources from the market, with consequent negative effects on the financing of investments and economic growth. Similar conclusions come to La Porta et al. (2000) who underline the fact that companies, in this situation, mostly resort to bank intermediaries or internal sources to finance themselves. Carlin and Mayer (1999) assert that in intermediary-oriented financial systems it is common to establish long-term relationships with banks: the latter are able to obtain more information on companies and are therefore inclined to finance long-term investment projects. In relation to the Italian market, Sapienza (2004) observes that in companies, whose shares are concentrated in the hands of the banks, the financial leverage is more contained, highlighting the bank's ability to influence the strategic choices of companies.

On the one hand, therefore, in intermediary-oriented systems, the lack of information available to the market implies a lower propensity for the latter to finance investment initiatives; this translates into the presence of information asymmetries that cause problems relating to agency relations between shareholders and third-party financiers and between majority and minority shareholders. On the other hand, even market-oriented systems are exposed to the risk of incurring agency costs, typically in relations between shareholders and management.

Shleifer and Vishny (1996), as already mentioned previously, define corporate governance as the system of rules capable of guaranteeing an adequate return on the capital provided by shareholders, stressing the need to reduce agency costs between management and shareholders. Dittmar and Mahrt-Smith (2003) assert that a good system of corporate

governance must be able to defend the ownership of the firm, and therefore the shareholders, from the inefficient use of corporate assets by those who manage the firm and show, through a study of about 10,000 in 45 different countries, how in companies with a bad system of rules every dollar of liquidity injected by shareholders loses about half its value, while in companies characterized by an effective and solid governance model, value almost doubles thanks to better control of the use of liquidity in highly profitable projects and lower expenses aimed primarily at satisfying the interests of top management.

These last two contributions mainly refer to a context typical of market-oriented systems - as in the United Kingdom, the USA and Canada - in which the shareholding structure is highly dispersed, therefore unable to carry out effective control over the management of the company but interested in the return on your investment. In this model of capitalism - defined as Anglo-Saxon capitalism - the shares are in the hands of many small shareholders, therefore, in order for the interests of shareholders and management to be aligned, it is necessary to resort to appropriate contractual solutions, such as linking the remuneration of the management to the result. expected by the shareholders, or rely on the protection offered by the internal and external governance system of the company, characterized by various control mechanisms that will be explained.

Anglo-Saxon capitalism, also defined as “managerial”, is not the only existing model, in fact in continental Europe and in the main Asian economies financial systems have characteristics much more similar to intermediary-oriented systems rather than market-oriented ones.

Just think of Germany where shareholdings are mainly in the hands of large families, flanked by the constant presence of large banks and financial institutions: the control core remains fairly stable thanks to the use of cross-shareholdings and pyramid structures, which make takeovers difficult. hostile and decrease the financial commitment required of members to control the group; moreover, the role of the banks, in addition to that of controlling the work of management, is of fundamental importance for the collection of loans.

Italy is also characterized by the presence of the so-called "family capitalism", in fact the shareholding is concentrated in the hands of large families and it is usual to resort to agreements between shareholders, pyramid structures and cross-shareholdings to have control of several companies. Unlike in Germany, banks and financial institutions play a primarily financing role vis-à-vis companies.

In Japan, Keiretsu are widespread, i.e. groups of vertically integrated companies that run around a large bank: the latter has the task of collecting and using financial resources between the network of companies and covering any liquidity needs. In this system, the use of internal sources takes priority over external ones.

In all these cases, in which the shareholding is concentrated in the hands of a few shareholders, the "agency costs" relating to the agency relations between the principal - shareholders - and the agent - management - are less relevant, however, a another type of “agency costs”, namely that between majority and minority shareholders. The latter can be expropriated from the right to control the company through various instruments, which the majority shareholders can use to benefit them:

- recourse to cross-shareholdings between companies, which make it possible to have control over several companies with a low financial commitment;
- implementation of the shareholders 'agreements, through which the adherents to the agreement are obliged to vote in a certain way in the shareholders' meeting (or even just to consult each other before the meeting), and the "blocking" ones, by which they are bound not to transfer its shareholding to third parties (in absolute terms or only after having complied with any approval or pre-emption clauses);
- use of pyramid structures that allow majority shareholders to acquire control with a diluted financial commitment;
- issue of shares without voting rights or with limited voting, which guarantees the shareholders in possession of greater dividends and / or privileges in the distribution of capital during liquidation.

The agency costs for minority shares are particularly important in the case of family businesses, especially when the generational handover takes place between the shareholder-founder and his heirs. According to Burkart et al. (2002), in the legal systems that protect minority shareholders, the founder, before transferring the shares, entrusts the management to the management and not to the heirs. In systems with intermediate protection of minority shareholders, the founder and his heirs retain the position of majority shareholders and continue to control and have influence on the work of the management; finally, in legal systems with little protection of minority shareholders, the founder and his heirs continue to be holders of both control and management of the company.

1.3 Agency Theories and Conflicts of Interest

According to Alchian and Demsetz (1972) the firm is defined, at the legal level, as a set of "legal functions that act as a link for a set of relationships between individuals, in which employment contracts, in addition to satisfying the individual interests of agents also help to maximize the value of the company”. Furthermore, it is characterized by the coordination and control function exercised by the entrepreneur in team productions. Subsequently, the firm would be

conceptualized by Moore (1992) as a “sum of physical assets over which they boast ownership rights”. Coase (1937) focuses his studies on property rights that define the basis of the business system, where it is believed that the shareholders impose the behavior of managers through both explicit and implicit contracts. However, since contracts fail to define every situation, this condition is in itself purely utopian (Grossman and Hart, 1986; Hart and Moore, 1990). It is therefore the executive management that assumes the responsibility and the freedom to make decisions that are not included in the contracts. This condition is defined with the expression "contractual incompleteness" which generates "residual rights of control", or the unilateral right to decide on the use of the assets in all cases not specified in the contract and to prevent access by outsiders. According to Hart "in a world of incomplete contracts there is an optimal allocation of residual rights of control: to the extent that ownership goes together with residual rights of control, there is therefore an excellent allocation of ownership of resources" (Hart, 1988).

The contractual incompleteness therefore raises the need to introduce management monitoring systems and incentive contractual solutions. It is from these assumptions that Jensen and Meckling's theory of agency develops. According to the two economists, the agency relationship arises when, following a contract, the principal (risk-neutral) hires the (risk-averse) agent to carry out an assignment on his behalf, therefore the principal delegates to the agent the decision-making power on how to act. In delegating the activity to the agent, the principal establishes the rules, conditions and methods of reward following the realization of the activity.

The situation in which both actors maximize their usefulness, and therefore their returns, is purely ideal, in fact the interests of the principal and the agent are not always aligned. Therefore, divergences may arise from the relationships between agent and principal in the event of two specific conditions:

- the "main" subject can observe the result but cannot directly monitor the agent's work, finding himself possessing incomplete information with respect to this (information asymmetry);
- the result of the agent's action is conditioned by events outside his control (uncertainty).

The presence of information asymmetry is a constant in agency relationships, since if on the one hand the agent finds himself having the decision-making power in his hands, it is nevertheless the principal who has a greater knowledge of the final result that must be pursued. In addition to the organizational variables, the way in which information is acquired

is therefore fundamental in order to achieve an effective and efficient definition of contracts within the company (Fama and Jensen, 1983; Zingales, 2000).

As regards the problem of uncertainty, this condition is also typical in agency contracts, in fact the assignment entrusted to the agent is usually influenced by external influences that cannot be foreseen a priori, and for this reason at the risk of not being able to be carried out.

These two conditions of information asymmetry and uncertainty can cause numerous frictions within the company, between the subjects who are its actors, precisely because the parties in question pursue an objective aimed at maximizing their own interests, which are often not aligned with the primary objective of the company which is expressed in the sustainable growth of profitability over a long-term period.

The condition of information asymmetry can generate two types of problems:

1 The "adversed selection", that is the adverse selection;
2 The "moral hazard", or moral hazard;

By adverse selection we mean hidden ex-ante information, which is expressed when the principal is unable to verify the skills that the agent claims to have when entering into a contractual relationship. For this reason, the principal must incentivize the party who owns the private information to disclose it by means of tools that make it possible to have as much information as possible. Ultimately, adverse selection is a form of pre-contractual opportunism.

In the case of moral hazard, the problem for the principal is to be able to incentivize the agent to carry out the task assigned to him in his interest, therefore the principal's objective is to be able to control the agent's behavior. Moral hazard is therefore a form of hidden ex-post action, which leads the agent to pursue his own interests at the expense of those of the principal, trusting in the latter's inability to control the presence of willful misconduct or negligence (Baumol, 1959; Marris, 1964; Williamson, 1964; Jensen 1986).

Agency theory helps to understand the problems related to the concept of cooperation, such as information asymmetry, uncertain (unobservable) results, the issue of using incentives, and identifying risks in decision making. This theory, also known by the principal-agent paradigm, emphasizes the contractual problems between the principal of the firm, generally the owner, and the agents of the firm, the executive management who manages the use of resources. Due to a conflict of objectives and interests, this separation of ownership and control can result in agency costs resulting from the need to align interests through “monitoring” or contractual solutions. As a logical consequence, Jensen and Meckling (1976) argue that agency costs are absent when the firm is run by an owner-manager. In this case, ownership and

management coincide, leading to a reduction in agency costs and therefore to an increase in the value of the company. Fama and Jensen (1983a, 1983b) extend the work of Jensen and Meckling by arguing that the separation between ownership and control can lead to a better efficiency of the firm which can even exceed agency costs. This efficiency is generated by the specialization of resources at the various levels and by the willingness to take risks due to their sharing.

The agency problems could easily be overcome, when the information was freely shared between the parties in question, and therefore in the absence of information asymmetries, without incurring additional costs, and if the incentives of the various actors participating in the contractual relationship were fully consistent and aligned with each other. There are several empirical evidences, which demonstrate how this condition occurs in very rare situations, while the presence of information asymmetries and uncertainty is a constant that determines the appearance of the so-called “agency costs”. These costs arise by virtue of the fact that the agent does not accept to suffer all the consequences of the actions he undertakes in the interest of the principal, for this reason the agent is risk averse; vice versa, the principal, risk neutral, not being able to actively monitor the agent's work, must design an incentive mechanism to induce the agent to perform the task well.

Agency costs therefore represent the deviation of the real condition from the ideal one, which translates into an inevitable decrease in well-being. In other words, the agency costs must be borne by one of the two parties involved in order to align the interests of the manager (agent) as much as possible with those of the shareholders (principal), reducing the information asymmetry as much as possible (Ang et al., 2000).

These costs are attributable to three main categories (Jensen and Meckling, 1976; Shleifer and Vishny, 1997; Di Cagno, 2012) and include:

- The costs incurred by the principal to monitor the agent's work, and consequently to intervene in encouraging or discouraging certain types of behavior. Typical examples are the presence of an internal audit, budgetary constraints and formal controls, but also incentive contracts (monitoring costs);
- The costs incurred by the agent (manager) to convince shareholders of his attachment to the company. Such costs could be identified, for example, with the acceptance of risky incentive schemes, so that the agent receives as compensation a fixed part and a variable part linked to the residual profit, but also with the presence of external auditors (bonding costs);
- The residual loss of well-being that occurs in agency relationships, as it is often impossible to reconcile the interests of the actors in question (residual loss).

The adequate analysis and use of tools, such as the structures of managers' remuneration contracts, remuneration linked to objectives, and the creation of an effective internal control system, can lead companies to reduce agency costs to a minimum. (Jensen and Meckling, 1976; Fama and Jensen 1983; Fama, 1980).

In the case of family businesses, ownership and control usually coincide with the same family or even with the same person, the partner-founder. According to Jensen and Meckling (1976), this alignment between ownership and control can lead to a reduction in agency costs. However, the influence of family issues, regardless of business interests in family businesses (Nordqvist et al. 2008), creates a complex structure of individual preferences. The relational and altruistic aspects play an important role in the decision-making process to the point of creating other causes of agency costs. For this reason, agency theory occupies a relevant perspective in family business that helps to better understand particular aspects of the behavior of actors in family businesses.

1.3.1 Theory of agency in family businesses

One of the main characteristics of the family business lies in the fact that ownership and control often coincide with the same family or even with the same person, the founding partner. The majority shareholder is usually the family, which also takes care of the management part of the company. Consequently, the problems related to the separation between ownership and control, in terms of conflict of interest between shareholders and managers, are not relevant as in companies with widespread shareholding systems.

Jensen and Meckling (1976) define agency costs of the first kind as those deriving from the impossibility of aligning interests between managers and shareholders. In fact, the managers, aware that the shareholders are not able to predict a priori every possible situation that could occur during the management, are able to implement opportunistic behaviors aimed at extracting private benefits to the detriment of the shareholders. Therefore, in the family business, type I costs are negligible, even they could be absent when ownership and management were in the hands of the family or the founding partner.

This argument is typically also valid in large family businesses where the management of the business tends to be entrusted to persons not belonging to the family, as it is very unlikely that these will make decisions aimed at satisfying private interests since the majority shareholder not only actively monitors management but also has absolute knowledge of the core business, being the creator of the company. The ownership, by carrying out a first-person monitoring of the management, reduces the problem of free-riding. This phenomenon occurs when the benefits of a share are divided between the community ("public") and its cost is

borne by the individual ("private") and is typical in companies with widespread shareholding, in which the individual shareholder does not has the incentive to actively monitor the manager because the resulting benefit is lower than the cost incurred. Conversely, in family businesses, ownership, not usually holding a diversified portfolio, has the incentive to carry out effective monitoring as their personal wealth depends significantly on the success or failure of the business.

Another feature of the family business is the lower likelihood of making short-sighted investments. In fact, family ownership usually has a longer time horizon than the other shareholders, one of its main objectives being the transfer of ownership to future generations. If on the one hand, therefore, companies with concentrated shareholdings, such as family companies, allow the agency problems described above to be reduced to a minimum, on the other hand they find themselves facing another type of conflict of interest: the conflict between majority shareholders. and minority shareholders, where the majority shareholder can, thanks to control, extract private benefits to the detriment of minority shareholders. This problem is known as Agency Problem II, and the associated costs arise to limit this behavior. This type of problem can arise for several reasons:

1 Control of minority shareholders: having control of the company through the majority of the voting rights, the family property could behave in such a way as to extract private benefits to the detriment of the minority shareholders. This can happen when, for example, there are different types of shares in circulation, which attribute different rights to those who hold them. (eg the founding shareholder owns the class of shares that assigns the multiple vote);
2 Investment decisions: family members and minority shareholders present in companies may have different objectives, as the former typically have the intergenerational transfer of the company as their primary objective, while the latter aim to invest in companies to obtain a monetary gain. For this reason, family ownership often tends to undertake less risky investments which may not be optimal for minority shareholders;
3 Succession costs: another consequence of the transfer of the company to the heirs is the loss of leadership and experience, which translates into a continuous loss of performance of the company to the detriment of minority shareholders (Morck et al. 2000) .

Another type of conflict of interest that could occur within a company is that between shareholders and creditors (third-type agency problem). In particular, shareholders could extract private benefits at the expense of capital providers by investing in riskier, and

therefore more profitable, projects than those normally undertaken by the firm. In this situation, shareholders appropriate most of the profits while bondholders bear higher costs. For this reason, the creditors, having this expectation, demand a higher remuneration. This type of conflict is less present in the family business as the interests of the property are more aligned with those of creditors. In fact, since the primary objective of the family is the survival and growth of the company in the long term, it is not oriented towards maximizing shareholder value but towards that of the company. In this context, therefore, external capital providers will demand a lower remuneration. Ultimately, the cost of debt is relatively lower in family businesses. In addition to the agency problems discussed above (I, II and III third), the family business may be subject to another type of conflict of interest: the conflict between the family and the family shareholders acting on its behalf (IV type). Indeed, just as shareholders have the power to appoint executives who act on their behalf, the family in general can appoint some of its members. So as in any agency relationship, the goals between principal and agent can be conflicting. In conclusion, the concentration of ownership on the one hand reduces type I and III agency problems, on the other hand it bears higher costs in relation to type II and IV agency problems.

1.3.2 Managerial discretion and shareholder expropriation

The agency theory was used to examine the existence of problems related to the relationship between shareholders and management in different situations in which the interests of the two parties in question diverge, such as in the choice of capital financing between equity and debt, in the choices of investments, in the defense against hostile takeovers or in acquisitions.

Managerial discretion includes all the ways in which company managers, exploiting their position and power, obtain personal benefits with company resources to the detriment of the shareholders, owners of the company. This behavior on the part of management occurs because very often those who manage the company also hold control rights over the allocation of resources and capital of the investors, and therefore of the shareholders; in this way, managers violate their duty of loyalty to shareholders.

The expropriation of company resources to the detriment of shareholders can take place in several ways: a first example is "transfer pricing", through which managers transfer corporate assets to other companies at lower prices than the market price directly or indirectly controlled by them. Another similar modality is the acquisition of companies, controlled by the management, at disadvantageous prices for the minority shareholders. However, as such practices have been discovered over time and therefore laws restricting such behavior have come into force, managers can use their discretion by assigning themselves high

compensation and benefits. Furthermore, especially in companies with highly concentrated shareholdings such as in family businesses, top management or whoever holds control can facilitate non-merit-based assumptions to the detriment of minority shareholders. Even the literature on the subject of executive compensation, in finding a correlation with company results (pay-for-performance) has focused on several question marks, especially as regards the variable part of the remuneration package: managers, who own shares in the companies they manage, they could be incentivized to behave in order to create value in the short term, in some cases through fraudulent actions aimed only at increasing the price of the shares they own.

A topic to be explored in this “managerial discretion” concerns the distribution of cash flows, in the form of dividends, to shareholders. In a study of about 500 companies Donaldson (1984) argues that managers are not guided by the maximization of the firm's value but by the maximization of "corporate wealth", defined as "the purchasing power available to management for strategic purposes during a given period and, in other words, the cash, credit and purchasing power with which the management has goods and services”. The distribution of "cash flow" to shareholders reduces the resources under the control of managers, and therefore their power, making it likely that they will be monitored by the capital market whenever the firm needs new capital (Easterbrook, 1984, and Rozeff, 1982). Financing projects internally reduces this monitoring and the possibility that funds are only available at high prices.

Managers have the incentive to grow their businesses beyond their optimal size: growth increases their power as resources under management control increase; furthermore, this growth is also accompanied by an increase in management remuneration, as changes in remuneration are positively correlated to sales growth (Murphy, 1985). The tendency of firms to reward middle-management through promotions rather than annual bonuses generates an organizational bias towards the growing need for new positions that the promotion-based system requires. (Baker, 1986)

Competition in the input market typically drives prices towards minimizing average costs in an activity. Managers are therefore motivated to increase efficiency to reduce the problem of survival. However, in new businesses or in businesses characterized by substantial income or quasi-income[4] the disciplining forces of the input market are weak; in these cases, the monitoring by the internal control system of the company and the "market for corporate

[4] profit, given by the positive difference between the price and the overall average cost, obtained by companies that produce at average costs lower than the competition

control" is essential, since the activities that generate significant income or quasi-income are typically those characterized by high amounts of "free cash flow".

The “free cash flow” is the cash flow in excess of that required to finance all the company's projects, with a positive net present value. Conflicts of interest between shareholders and managers regarding payout policies are very significant in the presence of high free cash flows. The problem in these cases is how to incentivize management to distribute cash to shareholders rather than investing it in projects below the cost of capital of the company or wasting it on inefficient activities, which however favor the personal interest of the shareholders themselves.

In this context, a decisive role in motivating managers and their organizations to be efficient is played by debt, in fact Jensen (1986) defines this function of debt as a “control hypothesis”. Managers, who have substantial amounts of free cash flow available, can decide to increase the level of dividends or buy back own shares and therefore distribute current liquidity that would otherwise be invested in projects with negative returns. Often management can promise to permanently increase the level of dividends, however these promises are weak as dividends may be reduced in the future. The fact that the capital market punishes dividend cuts with large share price reductions is consistent with the agency cost theory of free cash flow.

Debt creation allows managers to effectively tie their promises to future cash flow payments. Furthermore, debt can effectively replace dividends, a fact not fully recognized in the corporate governance literature. Managers, by borrowing in exchange for shares, tie their promises to the future payment of dividends in a way that cannot be achieved by simply increasing dividends, in fact they give shareholders the right to bring the company to bankruptcy in the event that it does not maintain their premises regarding interest and principal payments. Therefore, debt reduces the cash flow available in the hands of management, minimizing the agency costs of free cash flow. These debt control effects are a potential determinant of a firm's capital structure.

However, increasing the debt involves the generation of costs, in fact as the debt increases the probability of the company to fail increases (debt agency costs). The optimal level of the debt-to-equity ratio is the point at which the firm's value is greatest, that is, where the marginal cost of debt equals the marginal benefits. The "control hypothesis" does not therefore imply that the creation of debt always has positive effects. For example, these effects are not relevant in the case of high-growth organizations with highly profitable investment projects but with few free cash flows. These organizations typically turn to the financial markets on a regular basis to obtain new capital, so the markets have the opportunity

to evaluate the company, its management and its future projects. Investment banks and financial analysts play an important role in this monitoring function, and the valuation of the market is made evident by the price that investors are willing to pay for the firm's shares.

In summary, the debt control function is very crucial in organizations that have large amounts of cash flow but have low growth prospects, and even more important in organizations that have to contract (mature sectors). In these organizations, the incentive of managers to invest cash flows in inconvenient projects and waste it on assets to their advantage, to the detriment of shareholders, is a very serious problem.

Free cash flow theory also helps explain the effects of possible transactions that impact the firm's capital structure. According to Jensen (1986), most “leverage-increasing” transactions, such as stock repurchases and debt swaps for common or preferred stock, have a positive impact on the share price. Two-day capital gains range from 22% (debt-common stock swap) to 2.2% (debt-preferred stock swap). On the other hand, “leverage-reducing” transactions, which include the sale of shares and the exchange of ordinary or preferred shares for debt, are accompanied by a significant reduction in the price of the shares. The two-day losses range from -10% (common-debt swap) to -0.4% (convertible preferred stock). In line with these results, the "free cash-flow theory" argues that, with the exception of companies with profitable investment projects, the share price rises in conjunction with an increase in the "pay-out" to shareholders (or the simple promise) and decreases in relation to a reduction in the pay-out (or the promise of a future reduction).

In conclusion, both the agency costs relating to a high degree of debt and the agency costs associated with the huge free cash flow available to management make it necessary to align the interests between management and shareholders.

1.4 Corporate Governance Mechanisms

Corporate Governance, as previously mentioned, “deals with the way in which suppliers of finance to corporations assure themselves of getting a return on their investment” (Shleifer and Vishny 1997). However, it is by no means taken for granted that capital providers will be able to secure a return on their investment, as they do not have total control over the management, which manages the company's resources and makes strategic decisions on how to allocate resources in investment.

The most advanced economic markets have solved the problem of Corporate Governance quite effectively, as they ensure large flows of capital to businesses and moderate returns to investors. But this does not mean that the problem is completely solved or that it cannot be

improved. Even in the most developed market economies there is a great debate as to which existing governance mechanisms are "good" or "bad". Easterbrook and Fischel (1991) and Romano (1993a) judge the United States Corporate Governance system very positively, while Jensen (1989a, 1993) argues that it is decidedly imperfect and it is necessary to move from current companies towards "highly leveraged" organizations, similar to LBO (Leveraged Buyout). In any case, scholars agree that the United States, Japan, Germany and the United Kingdom have the best systems of Corporate Governance, despite having substantial differences between them. According to Barca (1995) and Pagano et al. (1995) in Italy the Corporate Governance mechanisms are underdeveloped to the point that companies find it difficult to find external capital to finance their investment projects; the same situation occurs in developing economies where governance systems are practically absent. Finally, the situation in Russia is particular, where the weakness of these systems leads to a significant diversion of company assets by managers to private companies controlled by them.

Corporate Governance mechanisms are economic and legal institutions that can usually be altered and improved through the political process. It might be thought that market competition could lead companies to minimize costs, and in the process of cost minimization to adopt rules, including governance mechanisms, that allow them to raise external capital at the lowest cost. In this theoretical view of economic change (Alchian (1950), Stigler (1958)), competition could take care of corporate governance.

Although market competition is probably the best force in achieving economic efficiency in the world, the latter is unable to solve the problem of corporate governance. Indeed, one could imagine that entrepreneurs borrow labor-power and capital on the market at a competitive price, and have no resources at their disposal that can diverge for their own personal use; however in reality, resources and productive capital are highly specific and appear to be “sunk costs”, therefore those who lend the capital need to be insured about their return from the loaned capital. Corporate governance mechanisms cater for this need for capital providers. Product market competition can certainly reduce the returns on capital and therefore the amount that managers can expropriate, but it cannot prevent managers from extracting the competitive return after the capital has sunk; therefore competition is not enough to solve this problem.

There are several mechanisms that companies can decide to use in order to solve the agency problem and the problems related to the separation between ownership and control of the company. These mechanisms are divided into external and internal mechanisms. With the former we mean all those mechanisms that do not depend on the will and control of the company, but on the external environment; with the latter we refer to the tools that strongly depend on an internal decision of the company.

1.4.1 External Corporate Governance Mechanisms

The first external mechanism is the “scalata” or “take-over” (Manne 1965). Its effectiveness strongly depends on the “Market for Corporate Control”, moreover the structure of the voting rights and the presence of large shareholders (insiders) influence the contestability of the company. In any case, the takeover pushes management to behave efficiently, that is, in line with shareholders' expectations.

In the United States and Great Britain, two of the countries where the presence of “large shareholders” is less common, hostile takeover is one of the most used mechanisms to consolidate ownership. In a typical hostile takeover, a buyer makes an offer to the target firm's dispersed shareholder base, and if they accept, they acquire control of the firm and often replace management. Empirical evidence suggests that takeovers address governance issues. (Manne, 1965; Jensen, 1988; Scharfstein, 1988). Hostile takeovers typically increase the combined value of the target firm and the acquiring firm, indicating that profits are likely to rise later (Jensen and Ruback , 1983). Furthermore, target firms are usually characterized by low performance (Palepu, 1986; Morck et al. 1988a, 1989), and their management is replaced once the takeover is successful (Martin and McConnell, 1991). Jensen (1986, 1988) argues that hostile takeovers can solve the problem of free cash flow, in fact they often lead to a distribution of the firm's profits to investors over time. Finally, takeovers are largely considered in the United States as the mechanism of corporate governance, without which “managerial discretion” can be effectively controlled. (Easterbrook and Fischel, 1991; Jensen, 1993).

In any case, some question marks remain open about the effectiveness of this corporate governance mechanism. In the first place, takeovers are generally very expensive, not only in the realization themselves, but above all due to the fact that the offeror has to pay the shareholders of the target company also the increase in profits expected under his management, because otherwise they they are in a position to keep their shares, which would automatically increase in value once the takeover took place. If the rights of minority shareholders are not fully protected, the offeror could get a slightly favorable contract compared to the shareholders of the target firm, but would still have to leave a portion of the gains resulting from the acquisition of control.

Second, acquisitions can increase agency costs when the bidding firm pays a higher price for the acquisition; this price relates to the private benefits of control that the bidder obtains (Shleifer and Vishny, 1988). Jensen (1993) argues that hostile takeovers, having a truly disciplinary function, are only a small part of those that have taken place in the United States. Furthermore, takeovers require a highly liquid capital market to be successful, so that buyers

can have access to large amounts of capital in the short term. Finally, takeovers are an extremely vulnerable mechanism at the political level, in fact they are often opposed to managerial lobbies. In the United States, political pressure has led to the generation of anti-takeover laws which have helped to decrease the use of this mechanism. In other countries, political opposition to takeovers is expressed in their general absence.

An alternative, less expensive than take-over, is the "proxy fight" or "battle of proxies", through which a company tries to gain control of another joint-stock company by collecting votes through proxies. in the assembly. However, this mechanism appears to have two main flaws. First of all, the management in charge has some structural advantages over the external company (also called "raider"), in fact it has control over the timing of the dispute and above all the managers of the company must choose among the current shareholders, already known , and outside speculators who often don't know. Secondly, the raiders who pursue a battle of proxies have less credibility than those who want to gain control of the target company through an actual acquisition; in fact, potential buyers, by launching a takeover bid, enjoy greater credibility because they are risking their own capital to obtain control and also typically, once the acquisition has taken place, they manage the company with the aim of increasing the share value to obtain a benefit. On the other hand, a raider who wages a battle of proxies may not own shares of the target company and asks for the trust of the shareholders, promising better corporate governance. It is for these reasons that usually the battle of proxies does not have positive results, except for the raiders who already have a fair share of the target company.

The second mechanism is the competitive pressure on the goods market, in fact competition reduces the waste and diversion of liquidity towards private benefits by the management. A company that aims to remain competitive must be able to produce a quality product and sell it at the market price. Inefficient management can, however, become a source of additional costs which, in turn, result in an increase in the selling price or in any case in uncompetitive final performances. At worst, incompetent managers can lead a business to failure. Jensen (1993) therefore suggests that competitive pressure on the goods market is, indirectly, a form of management discipline and therefore of corporate governance. Jensen himself (1993), however, argues that although it is valid in theory, in reality it is a negligible governance mechanism. Furthermore, the characteristics of each sector must be taken into account: in mature and poorly innovative sectors, where the competitive pressure of goods is low, there is a high incentive for managers to extract private benefits, vice versa in highly innovative and growing sectors (eg hi-tech sectors) the incentive is extremely lower as most of the liquidity is reinvested by the company for growth.

The third mechanism is competition on the manager's market: the higher this competition, the easier it is to replace incapable managers. However, competition exists only if the remuneration is linked to the manager's ability, that is, if the ability is assessed in relation to the performance of the company and therefore the manager is paid according to the results achieved. In this sense, the “Pay-for-performance” method was born (Fama, 1980; Murphy, 1999), which we will discuss later.

The last external mechanism is the institutional context in which the firm operates. The institutional context includes several entities:

- the legal system (common law or civil law) which aims to protect the property rights of shareholders and creditors;
- Corporate law, i.e. commercial law that regulates the rights of shareholders, creditors, law enforcement and the quality and transparency of accounting standards;
- the effectiveness and speed of the legal system;
- the Corporate Governance codes that establish the rules of conduct to govern the various conflicts listed above;
- professional associations: rules for auditors, auditors, financial analysts.

The main reason that investors provide external financing to companies is that they receive so-called "control rights" in return. External financing is a contract between the firm (legal entity) and the capital providers, who receive some rights to the firm's assets (Hart, 1995, part II). In the event that the management of the company violates the terms of the contract, investors have the right to appeal to the judicial court to enforce their rights. Most of the differences between corporate governance systems around the world stem from differences in the nature of the legal obligations that managers owe to lenders, and especially from differences in how courts interpret and enforce those obligations.

The most important legal right that shareholders hold is the right to vote on the main problems that characterize the company, such as mergers, acquisitions, elections to the Board of Directors, which in turn has certain rights towards management (Manne, 1965; Easterbrook and Fischel, 1983). Voting rights, however, prove to be very expensive to exercise and enforce. In many countries, shareholders cannot vote by email and must come to the meeting in person to vote, a requirement that virtually incentivizes small shareholders not to vote. In developed countries, courts have full confidence that voting takes place but management often interferes in the voting process, seeking to gain shareholder support and withholding information from its opponents (Pound, 1988; Grundfest, 1990). In countries with weak legal systems, shareholders' voting rights are blatantly violated. Managers in Russia often threaten employee-shareholders with dismissal if they do not support management with their vote, do

not inform shareholders about annual meetings, try to avoid any hostile takeovers with votes based on technicality. In summary, both the legal entity and the protection of shareholders' voting rights differ significantly between countries.

Although the shareholders have the right to elect the Board of Director, the directors do not necessarily represent the interests of the property. The structure of the Board of Directors therefore varies between the different economies, ranging from a two-tier Board (supervision and management) in Germany, to Insider-dominated Boards in Japan and mixed Boards in the United States (Charkham, 1994). In America, boards of directors, especially those dominated by outside directors, often remove top management in the event of poor performance (Weisbach, 1988). Empirical evidence in Japan and Germany (Kaplan, 1994a, b) shows that boards are typically passive, except in extreme situations. Mace (1971) and Jensen (1993) argue that, in general, Boards of Directors in the United States are captured by top management.

In many countries, shareholders 'voting rights are supplemented by the managers' duty of loyalty towards ownership, ie management has a duty to act in the interests of shareholders. Although many argue that managers should have a "duty of loyalty" also towards employees, the community, creditors and the state, courts in OECD countries agree with this idea of a manager's duty of loyalty to shareholders. In fact, shareholder investments have mostly sunk, and further investments in the firm are generally not disbursed by them. The case of employees, the community and even creditors is different: employees, for example, immediately receive the salary for their effort, and are typically in a better position to bargain with the firm (hold-up) than shareholders. The investment of the latter is a sunk cost, therefore they have less protection from expropriation by the management in relation to the other stakeholders of the company. To induce investors to provide capital for the first time, they must have higher protection, such as duty of loyalty.

The most common elements that characterize the "duty of loyalty" concern legal restrictions on "managerial self-dealing", which is usually expressed in:

- expropriation of company resources by management for personal purposes;
- excessive remuneration of top management;
- sale of company assets at a lower price to companies controlled by top management;
- acquisitions of other companies at a price such as to expropriate minority shareholders from control of the company;
- issuing additional “securities” (such as equity) to managers and their relatives.

In many cases the law explicitly prohibits self-dealing; in other cases, it enforces the company's constitutive acts, which prohibit it (Easterbrook and Fischel, 1991). Some legal restrictions are

that management, before making important decisions, must consult the Board of Directors or shareholders, after careful consideration, can prevent the sale of the firm's assets at low prices.

Although the duty of loyalty is accepted in the main OECD countries, the rigor with which the law enforces it varies considerably between the different countries. In the United States, the courts may intervene in the event of the theft and diversion of assets by the management, or when the latter attempts to dilute the shares of shareholders by issuing shares for itself. The law is usually less likely to intervene in the case of excessive remuneration, especially in the presence of a complex remuneration package, or on business decisions by management that may nevertheless be in conflict with the interests of shareholders. Last, and not least, shareholders in the United States have the right to sue the firm, often using a "class action" that circumvents the free-riding problem, if they believe management has violated the duty of loyalty.

In summary, outside the United States and Canada, "class actions" are often not permitted and in general, excluding OECD countries, the "duty of loyalty" is a very weak concept, partly because the law does not have the possibility and perhaps the will to intervene in this regard.

Like shareholders, creditors also have various legal protections available, which often vary between different countries. Such protections may include the right to have the firm's assets and / or to liquidate in the event of non-payment of debt, the right to vote in the event of decisions on the reorganization of the firm, and the right to remove managers during the reorganization. The legal protections of creditors are usually more effective than those of shareholders, since the bankruptcy of a business is certainly a breach of the debt contract, which can be easily verified by a court. On the other hand, when the bankruptcy procedure gives the firm the right to keep creditors out, management can keep creditors at bay even after the firm is declared bankrupt. Seizing the firm's assets in the event of bankruptcy is often very difficult even for senior creditors (White, 1993). Since there are different categories of creditors with usually different interests, bankruptcy proceedings go on for several years before reaching a conclusion (Baird and Jackson, 1985; Gertner and Scharfstein, 1991; Weiss, 1990); this entails higher costs for creditors and makes debt a less attractive form of financing. Bankruptcy procedures are therefore highly complicated, to the extent that in the United States (Gilson et al., 1990; Asquith et al., 1994) and in Europe (OECD, 1995), creditors renegotiate outside the formal bankruptcy procedure. The situation is certainly worse in developing countries, where the courts are unreliable and bankruptcy laws are not complete. This inefficiency of existing bankruptcy procedures has led some scholars (Bebchuk, 1988; Aghion et al., 1992) to propose a new system that allows to reduce complicated negotiations, converting all the rights of the bankruptcy of the firm into equity and then leaving the decision

on what to do with the failed business to the equity holders. This new procedure could in the long run reduce costs to protect creditors' rights.

In summary, the extent of legal investor protection varies significantly around the world. In some countries, such as the United States, Japan and Germany, the law protects the rights of a large proportion of investors, and courts typically enforce such laws. However, even in these countries the system leaves managers considerable discretion to act to achieve personal goals, to the detriment of investors. In other countries, the laws are less protective and the courts only intervene in cases of absolutely clear violation of the rights of investors. Therefore, legal protection alone is not sufficient to guarantee investors a return on their investment.

1.4.2 Internal Corporate Governance Mechanisms

The main Corporate Governance mechanisms, according to the literature, are the Board of Directors, the top management remuneration plans, the capital structure and finally the ownership structure. Numerous researches and empirical analyzes address each of these mechanisms.

The Board of Directors is usually elected by the shareholders and has, among its main tasks, that of appointing and supervising the top management. It is an internal institution of the company with the necessary authority and capacity to assure shareholders that top management operates in line with their interests. However, if in theory the BoD is considered to be a highly effective corporate governance mechanism, in reality it is not taken for granted that directors have the incentive to carry out their duties fairly. Relationships are often established between management and directors that lead both parties to adopt opportunistic behaviors, to the detriment of corporate ownership. It is no coincidence that recently many companies have pushed to encourage change with the aim of improving the situation, carrying out a sort of reform of the “Board of Directors” (Denis, 2001). Among the main changes we tried to:

- reduce the number of directors of the BoD;
- increase the number of so-called independent directors (outside directors) who are presumed to have no economic or personal ties with managers;
- entrust independent directors with the preparation of top management remuneration plans;
- separate the positions of Chairman of the Board of Directors and Chief Executive Officer (CEO);
- incentivize the members of the Board of Directors to own shares in the managed company.

From empirical studies conducted (Hermaling and Weisbach, 2001) it emerged that the characteristics of the Board of Directors having a fairly significant impact on agency problems within a company are the size of the Board of Directors and the presence of independent directors. In relation to the size of the Board, the shared opinion is that the lower the number of members in the Board, the more the latter is able to operate effectively, ensuring better transparency, greater speed in making important decisions and, therefore, better monitoring of the work of managers. With reference, however, to the presence or absence of independent directors, who are typically non-executive directors, it is clear that the "insider directors", i.e. directors who are part of the top management and the "affiliated directors", ie members of the Board of Directors in some way having a link with one or more managers, control the work of top management in a less effective way than independent directors, who do not have any type of connection with managers. Regarding this last point, the European Commission also in a 2005 recommendation[5] confirmed the need to guarantee, within the Board of Director, a sufficient number of outside directors "to ensure that any material conflict of interest involving directors will be properly dealt with".

The second mechanism is the remuneration of managers: well-structured contracts can minimize the divergence of interests between shareholders and managers. The theory of incentives and the agency suggests linking the manager's remuneration to the interests of the property, that is to the enhancement of the company, therefore linking the remuneration to performance. The remuneration, in fact, is made up of a fixed part (salary) and a variable part linked to the performance of the company, or to the creation of value. As a rule, the variable part is made up of a bonus or “cash part”, a “cash” bonus linked to the achievement of a specific short-term objective, equity bonuses and “stock options”. The latter give the holder the right to purchase shares, within a certain period, at a price fixed at the time the option is offered, for which the compensation is measured by the difference between the market price of the share at the time of exercise of the option and the amount paid by the holder. The incentive on the part of managers is therefore to increase the value of the shares in the short term.

Recently the literature has devoted particular attention to the debt contract as a mechanism for solving agency problems. Although Modigliani and Miller (1958) associate debt only with the issue of cash flows and the value of the firm, another feature of debt relates to the ability of creditors to control the firm. Specifically, debt is a contract in which a person borrows funds from a lender and subsequently promises to the latter a predefined flow of payments; in addition, the borrower typically promises not to violate certain clauses (Smith and Warner,

[5] European Commission Recommendation of 15.2.2005 on the role of non-executive or supervisory directors of listed companies and on the committees of the (supervisory) board, OJEU L 52/51, section II no. 4

1979), such as maintaining the value of assets within the firm. If the borrower violates one of the clauses, and especially in the case of non-repayment of the capital provided, the creditors have, as already stated above, certain rights over the assets of the company and the possibility of bringing the company to court. An essential feature of the debt contract is, therefore, the transfer of certain rights from the “borrower” to the “lender” (creditor).

In general, higher levels of debt can incentivize more management effort to try to avoid company failure; furthermore, due to commitments related to debt contracts, which reduce the liquidity available to the manager, debt allows managers to be disciplined in some way. Debt can also improve type 4 agency problems by helping the family to maintain control of the business. In fact, the use of external sources reduces the need to increase equity which would have the direct consequence of diluting the power of the family-shareholders. In any case, it is necessary to highlight how excessive indebtedness could lead to the so-called “underinvestment”, or “under-investment”, that is the inability of the company to finance an investment that potentially would have a positive return. This is because as debt increases, the company's chances of accessing further debt decrease. Excessive indebtedness, however, could lead to the "grip of the debtor", in the sense that the company would be forced to allocate most of the cash flows generated to the payment of interest on the debt.

The fourth internal mechanism of Corporate Governance is the concentration of ownership. The literature has always considered two types of ownership concentration to minimize agency problems: managerial ownership which, through control and ownership of management, allows for the alignment of interests between ownership and management; the “blockholder” property that seeks to reduce agency problems through better monitoring of the work of managers. As noted above, both also involve family businesses; in fact, the concentration of family ownership makes it possible to mitigate type I and III agency problems, however it generates an increase in costs relating to type II and IV problems. Within the family business, in addition to family shareholders, there may also be external “blockholders” and institutional investors, who have the right incentive to monitor not only managers but also family members. In addition, they can facilitate the action of any take-overs. Later, the issue of ownership structure will be dealt with in a separate paragraph.

A further mechanism is the dividend policy which, through a greater distribution of dividends, reduces the ability of managers to use the free cash flow generated by the company for personal purposes. It is necessary to underline that the definition of the dividend is very relevant for company strategies: not distributing dividends can generate conflict between shareholders and management, distributing an excessively generous dividend can generate a destruction of the cash flow generated by the company that could be used to finance investments. The subject of the dividend policy will be described in detail in chapter 2.

1.5 Legal mechanisms and "families" of commercial law

The legal system and the rules of a country that control corporate governance, until recently, have received little interest from scholars on the subject, at least compared to the interest addressed to other mechanisms, internal and external.

Jensen (1993) defines the legal mechanisms of governance "… far too blunt an instrument to handle the problem of wasteful managerial behavior effectively". However, various analyzes have shown how the legal system of a country can have a significant impact on the corporate governance of companies. La Porta et al. (1998, 2000), for example, have shown that both the laws in force and their applicability have a significant influence in governing conflicts of interest between shareholders and management. In a cross-sectional analysis of different countries, La Porta et al. (1999) argue that differences in ownership structure, capital structure, financing choices and dividend policies are all highly correlated with the level of legal protection afforded to investors against the risk of expropriation by management and / or majority shareholders; in particular, the existence of an inverse relationship emerged between the degree of protection guaranteed by the legal system of a country and the level of concentration of the shares of companies in the same country. Furthermore, Shleifer and Vishny (1997) argue that the most relevant agency problem does not arise from the conflict of interest between owners and top management but between majority and minority shareholders. It is therefore evident that the intervention of the legal system to protect minority shareholders for the resolution of the agency conflict can be considered a very indispensable Corporate Governance mechanism. Therefore, the more a country's legal system is able to protect the rights of capital providers, the more it will have a positive impact on the country's economic and financial development. In summary, legal protection of investors and ownership concentration can be considered strictly complementary instruments of corporate governance.

Commercial law aims to regulate the legal relationships between the company, in all its facets, and its related stakeholders, that is, the bearers of interest in the company. Bankruptcy law, the regulation on extraordinary transactions, such as mergers and acquisitions, the regulations on financial statements and accounting, transparency and mandatory disclosure, and finally the rights of shareholders and creditors, represent the main instruments that are configured as disciplinary the management and control of a company. Although there are no nations with perfectly identical laws, some legal systems are sufficiently similar and therefore it is possible to classify them in some large families of laws (La Porta et al., 1998). The criteria used for the classification are the following (Glendon et al., 1992):

- historical background and evolution of the legal system over time;
- sources of law;
- legal methodologies;
- basic legal principles;
- fundamental legal institutions;
- division into the different disciplines of law

On the basis of these criteria, two general legal traditions can be identified: Civil Law and Common Law (Figure 1). The first is the most widespread legal tradition in the world and the oldest: it originates from Roman law and scholars believe that three families of legal systems belong to it: the German, French and Scandinavian ones.

Country	Legal origin
Austria	Civil law, German origin
Belgium	Civil law, French origin
Denmark	Civil law, Scandinavian origin
Finland	Civil law, Scandinavian origin
France	Civil law, French origin
Germany	Civil law, German origin
Greece	Civil law, French origin
Ireland	Common law
Italy	Civil law, French origin
Luxembourg	Civil law, French origin
Netherlands	Civil law, French origin
Norway	Civil law, Scandinavian origin
Portugal	Civil law, French origin
Spain	Civil law, French origin
Sweden	Civil law, Scandinavian origin
Switzerland	Civil law, German origin
UK	Common law

Figure 1 *Origin of European legal systems*

Source: Weil, Gotshal, Manges, 2002, "Comparative study of corporate governance codes relevant to the European Union and its member states", Brussels

The French Commercial Code was drafted by Napoleon in 1807 and was later extended to Belgium, Holland, parts of Poland, Italy and Germany. In Europe, the French influence appears to have been very significant in Luxembourg, Portugal, Spain, some Swiss cantons and in Italy (Glendon et al., 1994). The German Commercial Code, on the other hand, was drawn up in 1897 after the unification of Bismarck's Germany. It did not have a similar diffusion to the French one, however, it had a significant influence on the legal doctrine of some important European countries including Italy, Switzerland, Austria, Greece, Hungary. Scandinavian law is often held to be part of traditional civil law despite having fewer features in common with

Roman law than French and German doctrines. The civil codes of the Nordic countries date back to the 18th century; these countries appear to have very similar laws to each other but different from other European countries. Ultimately, the four Northern European countries (Norway, Sweden, Finland and Denmark) are considered a category of their own.

Common law is not typically based on written laws, in fact it is a right that finds its foundation and inspiration in past judicial rulings, issued to resolve disputes relating to Corporate Governance. It derives mainly from the Anglo-Saxon legal tradition which, however, with the exception of Great Britain, has not spread significantly to the rest of Europe.

The study by La Porta et al. (1998), shows that countries with a “Common Law” legal system have a higher legal protection of shareholders and creditors than those with a “Civil Law” legal system. As for the Civil Law, French law protects the rights of investors less effectively than the Scandinavian and German legal system. Finally, an interesting evidence is that the legal protection of investors influences financial development, in fact the countries with greater investor protection appear to have larger capital and more prosperous and developed financial systems.

1.6 Ownership structure as a disciplinary mechanism for conflicts within the company: widely held firm, closely held firm and family business

It has been said previously that the legal system of a country and the degree of ownership concentration are complementary tools in solving agency problems within a company. In the event that the legal protection is not able to guarantee investors a return on the investment and is therefore unable to reduce the risk of expropriation by the management, the degree of concentration of ownership assumes particular importance.

Berle and Means (1932) in their book "The Modern Corporation and Private Property" show that in the United States there is the prevalence of the so-called "widely held firms", that is, firms in which ownership is dispersed among many small shareholders and therefore control it is concentrated in the hands of top management. In this type of company, where the separation between ownership and control is maximum, typical conflicts of interest arise between management and shareholders. For about two generations their study has represented the image of the modern company led by professional managers who did not have to account for the shareholders, and also has encouraged the proliferation of numerous studies on managerial literature, among which the studies of Baumol are mentioned. (1959), Marris (1964) and Williamson (1964).

Subsequently, new empirical studies questioned that modern image of the firm. Holderness and Sheehan (1988) showed that several hundred publicly traded companies in the United States are characterized by the presence of majority shareholders, with a share greater than 51%. In the rest of the world the presence of "large shareholders" is much more frequent. In Germany, large commercial banks, through voting proxies, often manage to obtain control of a quarter of the votes in major companies, and also have small but significant shares with dividend rights as direct shareholders or creditors (Franks and Mayer, 1994; OECD, 1995). Furthermore, a study conducted by Gorton and Schmid (1996) showed that around 80% of the largest German companies are also controlled by a majority shareholder other than banks with more than 25% of the shares. Also in Germany, in smaller firms the norm is family control through the majority shareholding or the pyramid structure (Franks and Mayer, 1994). Pyramids allow the ultimate owner to control the assets of subsidiary firms with minimal financial effort (Barca, 1995). In Japan, although ownership is not as concentrated as in Germany, large "cross-holdings" and "shareholdings" made up of large banks are the norm. (Prowse, 1992; Berglof and Perotti, 1994; OECD, 1995). In the rest of the world, therefore in most of Europe (Italy, Finland, Sweden), Latin America, Asia and Africa, companies often have “controlling owners”, who are often the founders of the company. In short, highly concentrated shareholdings and owner-controller dominance are the rule in most countries around the world.

Therefore, 3 main proprietary structures can typically be defined:

- “Widely held company”, a company in which the shareholding is dispersed among a myriad of small shareholders and there is no controlling shareholder; control in this case is entrusted to top management. In this type of company, the separation between ownership and control is maximum. This ownership structure is present in the Anglo-Saxon countries, therefore the United States and the United Kingdom;
- “Closely held company”, a company in which a limited number of shareholders control the majority of the shares. To measure the control of a shareholder, it is necessary to combine the direct (shares registered with the shareholder's name) and indirect (shares held by another company controlled by the shareholder) voting rights that the shareholder owns. A shareholder has *x* percentage of indirect voting rights over Firm A if: (1) it directly controls Firm B, which in turn controls *x* of Firm A's votes; (2) Directly controls Firm C which in turn controls Firm B (or a sequence of firms reporting to Firm B, each of which controls the next firm), which directly controls *x* of the votes of firm A. A group of companies form a "chain of control" if each firm controls the consecutive firm. Thus, a firm has a controlling shareholder if the sum of the shareholder's direct and indirect voting rights exceeds an arbitrary cutoff value, which for example can be

20% or 10% (La Porta et al., 1999). These majority shareholders typically tend to hold their shares over time, and therefore only minority shares are traded on the stock market. This type of ownership structure, by its nature, offers greater resistance to any hostile takeovers or battles of proxies; usually these firms tend to be more stable over time than the first type because the price of their shares is not determined by investment decisions, but by the value of the firm itself. However, it was found that they have greater difficulties in gaining access to capital than companies with many shareholders;

- “Family firm”, a company where a family or one of its members is the controlling shareholder. There is no single definition of a family business. According to a broader definition, the family business is characterized by the fact that the family has control over the operational strategy and participates in the management of the company. There are three main elements in this definition: family ownership, the family's influence on strategy, and the family's active participation in the business. An intermediate definition provides, in addition to the previous criteria, that the top management is entrusted to the founding partner of the company or one of his descendants. This means that the CEO or most of the subjects on the Board of Directors have a family relationship with the family that holds control of the company. The last definition, which can be defined as "restricted", provides for three further criteria: more than one generation of the family must be involved in society, family members must be involved in management activities and finally more than one family member must hold managerial roles (Astrachan and Shanker, 2003).

Now let's see what the advantages of having a more or less concentrated structure can be and subsequently it will be necessary to highlight the benefits and costs of a family business.

The most direct way to align controlling and dividend rights is to concentrate the shareholding. This means that one or more investors own a substantial stake in the firm, such as 10% or 20%. In fact, by owning a significant shareholding, these shareholders have the incentive to request information and monitor management, reducing the known problem of free-riding; in addition, they also have the ability, through their voting rights, to put pressure on management through “takeovers” or “proxy fights” (Shleifer and Vishny, 1986b). In the most extreme cases, they may even have control of the company and its management with a stake of more than 51%. The "large shareholders" can therefore reduce agency problems, having in general, as their ultimate goal, the maximization of profit, and having the necessary control to ensure that their interests are respected. Several empirical evidences support the role of ownership concentration in regulating the relationships between shareholders and management. In Germany Franks and Mayer (1994) believe that concentrated shareholdings

are associated with higher top-management turnover. In Japan, Kaplan and Minton (1994) and Kang and Shivdasani (1995) show that companies with large shareholders are more likely to replace managers following poor performance; in addition, the "large shareholders" reduce expenses at the discretion of management, for example expenses in advertising, in Research and Development and other expenses not strictly related to the business. All these empirical studies support the idea that ownership concentration plays an important role in corporate governance (Shleifer and Vishny, 1986b).

However, it should be pointed out that the power of large shareholders to exercise their voting rights strongly depends on their degree of legal protection. The majority ownership structure only works if the voting mechanism works, so that the ownership majority can have control over the firm's decisions. All this requires a little "enforcement" by the court, as it is easy to ascertain the majority reached (51%) and it is not necessary to count the votes if the controlling shareholders have cast their vote. In the presence of dispersed shareholders, the problems are more complicated as small shareholders have to form alliances with each other or with other external investors to exercise control. The power of management to interfere in alliances, in the latter case, is extremely high. For this reason, dispersed shareholding is much more present in countries with strong and sophisticated legal systems, while in countries where the legal system is weak it is customary to find highly concentrated shareholders.

The benefits of "large shareholders" are obvious: they have an interest in monitoring management in order to guarantee a return on their investment and above all they have the power to do so. However, there are several costs that come with this type of ownership structure. First, large shareholders, unlike dispersed shareholders, are not diversified and bear excessive risks (Demsetz and Lehn, 1985). However, as ownership in most of the world is highly concentrated, the lack of diversification is not a critical issue.

A more important problem is that majority shareholders typically do not pursue the interests of the firm's other stakeholders, that is, the interests of minority shareholders, employees and managers. In using its control rights, to pursue its interests, or the maximization of its well-being, the majority shareholder can redistribute the company's wealth to the other stakeholders in a more or less efficient way. Therefore, a potential cost related to the presence of "large shareholders" can be identified: the expropriation of minority shareholders, employees and managers, through the pursuit of personal interests at the expense of maximizing the company's profit. Majority shareholders can do this as typically their controlling rights far exceed their dividend rights. This can happen if they own shares with multiple voting rights, and therefore there is no one share-one vote rule, or if they control the company through a pyramid structure. (Grossman and Hart, 1988; Harris and Raviv, 1988). In these cases, the majority shareholders are inclined to expropriate other investors, not paying

dividends and earning only themselves; in fact, they can award themselves special dividends and exploit commercial relationships with other companies they control. Greenmail and the buyback of own shares are examples of instruments held by the controlling shareholders. (Dann and DeAngelo, 1983).

Few empirical evidences have focused on the degree of expropriation of minority shareholders. However, the fact that the shares with higher voting rights are traded on the stock market with a “premium price” is evidence of the presence of significant private benefits of control, to the detriment of minority shareholders. In Sweden and America, where the "premium price" is the lowest ever, no significant evidence of shareholder expropriation was found (Bergstrom and Rydqvist (1990) for Sweden; Barclays and Holderness (1989, 1992) for the United States). Conversely, in Italy Zingales (1994) shows a positive correlation between the expropriation of minority shareholders and the voting bonus. Other evidence on the private benefits of control and on the potential expropriation of minority shareholders comes from studies on the relationship between the ownership structure and the performance of the company. Morck et al. (1988b) show a relationship between ownership concentration and firm profitability, measured by the Tobin's Q equation. The authors find that profitability increases in the ownership structure range between 0% and 5%, and then decreases thereafter. One possible interpretation is that, consistent with the literature on agency problems, performance improves with increasing ownership concentration; at a certain point, however, the controlling shareholders appear to have too much power and prefer to use the company to have personal benefits not shared with the other shareholders. In line with this study, it emerged in Germany and Japan that banks receive large revenues from their control over industrial firms, to the detriment of other minority investors here too. Rajan (1992) argues that banks derive benefits from firms by having information advantages over other investors. Weinstein and Yafeh (1994) believe that firms with a bank as their main shareholder pay higher interest rates than other firms.

The problem of expropriation potentially becomes more relevant when there are different types of investors in the company with rights on the cash-flow that may be in conflict with each other. For example, if the controlling shareholder is an equity holder, this could have the incentive to undertake highly risky but profitable investment projects; in the event of bankruptcy, creditors would bear most of the costs associated with the bankruptcy (Jensen and Meckling, 1976). Alternatively, if the large investor is a creditor, this could force the firm to give up profitable investment projects because it would bear part of the costs, while the benefits would accrue to the shareholders (Myers, 1977). Finally, large investors would have a greater incentive to redistribute earnings to employees, rather than keep them for themselves, compared to how managers behave (Shleifer and Summers, 1988).

In general, expropriation turns out to be detrimental to the efficiency of the company because it can cause negative effects on the incentives of managers and employees. In fact, these could reduce their productive effort in the event that the monitoring by the controlling shareholders or large external investors proves extremely excessive or when they can be easily removed from their offices with consequent loss of income. In fact, the idea is that a "large investor" is unable to undertake not to extract benefits at the expense of ex-post management, and this has a real negative ex-ante impact on the incentives of managers and employees. When the target of the expropriation is another investor, the immediate effect is the reduction of external financing available to the company. In many countries, therefore, since there is no strong protection on the rights of minority investors, the presence of controlling shareholders in the form of families or banks is usual. On the one hand, this type of governance structure has the advantage of controlling the work of management, on the other, however, it leaves the interests of small investors or minority shareholders unprotected, with the consequence that they do not have the incentive to invest in businesses. For these reasons, the countries of continental Europe, such as Italy, Germany and France, have small stock markets. In this regard, the existence of a highly developed equity market in Japan, despite the weak protection of minority shareholders, is still an unresolved question. The example of Japan can lead to a change of view on the disciplining role of large investors, who often turn out to be too "good" rather than being "strict". Indeed, as Edwards and Fischer (1994) point out, German banks do not play an active role in corporate governance as expected, given their power and control over industrial firms. Secondly, if large investors, such as banks, do not suffer directly from agency problems, they do not have the incentive to carry out monitoring. In summary, therefore, the ownership concentration certainly has positive effects on corporate governance, however it generates other problems of agency and expropriation due to the excessive concentration of shares in the hands of a few subjects.

A third type of ownership structure, which appears to belong to the category of "closely-held companies", is the family business in which the controlling shareholder is a family or one of its members. First of all, it is important to understand what is the degree of influence of the family on a business, that is the impact of the family on the strategies, on the business, on the success or eventual failure of the business. Astrachan et al. (2002) propose to measure this influence under three main aspects: power, experience and culture. Power refers to the share of capital in the hands of the family and the number of family members on the Board of Directors and in the management of the company. With experience alludes to the experience gained by the company, indicated by the number of generations of the family present within the company. Finally, by culture we mean the set of vision, mission and values that characterize the family business.

Family businesses dominate the scenario of the main economies in the world and play a decisive role in the economic and social growth of many countries. One of the characteristics that makes the family business model different from the unfamiliar one is the overlap between business and family. The major contribution in this area is the one proposed by Tagiuri and Davis (1992). The two authors represent the family business as the intersection of three separate but overlapping and interdependent systems. Each system has its own prerogatives, functions, roles, responsibilities and there are one or more formal (or informal) systems that are used in the decision-making process and guide the reciprocal influence between the different systems. Particularly:

- the "enterprise" system includes the mission and strategies, the organizational culture, business processes and technologies;
- the "ownership" system includes the "shareholders value", the ownership structure, the Governance and the Board, the legal and regulatory system;
- the "family" system includes the objectives, values, experiences, relationships and communication of the family.

Within these three systems, particular attention is paid to different aspects. In the "family" system, the ultimate goal is to train and educate the subjects within the company and to transmit the main values of the same; in the "ownership" system, the focus is on corporate governance and on creating value for shareholders; finally, in the "business" system a decisive role is related to the decision-making process and to the relationships that exist between the various subjects. The influence and interaction between the three systems, while being the main characteristic of the business family, is a source of problem generation among the actors involved within this type of company. The variables particularly influenced by the overlapping of the family and business spheres are:

- The remuneration policies of the founding member and his relatives; the family logic tends to pay according to the interests of the subjects while the corporate logic pays in relation to the background and professional path of the subjects;
- The remuneration policies of investors outside the company;
- The policies for selecting and evaluating members belonging to the family; in this case, as there is a trade-off between the hiring of competent subjects and / or family members, the evaluation in the family logic tends not to make differences between the family members, while the business logic tends to choose the subjects on the basis of two performance;
- The execution of the succession processes of the Chief Executive Officer (CEO);
- The choices of growth and development of the company and training of collaborators;

- The composition of the corporate governance bodies.

Therefore, three conceptions of the relationship between firm and family can be identified: (1) The firm is superimposed on the family; (2) The family prevails over the firm; (3). The company has its own independent from the family. In the first hypothesis, “the company is not recognized as an independent institution with respect to the family” (Corbetta, 1995) and therefore there is no distinction between family and business. The second conception presupposes the recognition of both entities, however the family with its objectives, behaviors and its norms tend to prevail over the company. In the third conception, the needs and interests of the two entities are autonomous, allowing for a parallel development of both.

At this point, it is necessary to present the possible advantages, as well as the potential limitations of the family business, and also to understand what influence the degree of involvement of the family in the management and ownership may have on the results of the company. The theoretical evidence that deals with the issue in question is quite numerous, highlighting both positive and negative aspects of the family business. It therefore appears evident that the presence of a family in the property and / or in the top management can be an advantage and / or a disadvantage for the competitiveness of the company itself. At an empirical level, the research carried out both nationally and internationally was not able to clearly define the sign of the correlation between family business and performance: an analysis was also conducted separating the two aspects, ownership and management, therefore considering on the one hand the involvement of the family in the ownership, and on the other hand the involvement of the same in the management, but in both cases the link with the company performance is not clear and unambiguous. For this reason, it is clearly impossible to establish whether there are greater (lower) benefits than costs in the family business and this is due to the specific characteristics inherent in each company, to the differences between the different sectors of belonging and to the political and relative economic-financial (Gallucci and Navi, 2011). Analyzing the results of the literature, it is however possible to establish which are the main advantages and disadvantages of the family business. Among the strengths of the family business, the following aspects are mentioned:

- The reduction of agency costs linked to the relationship between management and shareholders; other types of agency costs arise but, in any case, there is a lesser tendency for family members engaged in society to behave in an opportunistic manner;
- The ultimate goal of the partner-founder, which does not only concern the maximization of the company's profit, but also the maximization of the value of the company to be preserved and passed on to future generations;

- The prospective vision of the family that is expressed in long-term strategies, aimed at the sustainable and lasting creation of company value. In this sense, family businesses appear to suffer less from the so-called "investment myopia", as they are more likely to define efficient investments since they are able to contain marginal risk and the related cost and are able to establish relationships of trust with suppliers external;
- The values, experience and organizational culture that play an important role for the family and for its relations with the company's stakeholders.

However, there are also several limiting aspects within the context of the family business, and these aspects are as follows:

- The minor monitoring carried out by financial institutions and in general by the "market for corporate control", as the shares of the family business are typically in the hands of the founding partner and are usually not traded on the stock markets. This makes the markets themselves less liquid and developed;
- The lower competence of family members, who are often entrusted with important roles on the Board of Directors and in the top management of the company. For this reason, capable and competent managers often fail to enter family businesses and replace incapable family members; this implies a lower competitiveness on the manager's market;
- The protectionism of the family can represent a limit to the growth of the company; this is expressed in the limited opening of the company to the capital of external investors and therefore in often giving up profitable investment projects, given the lack of capital. Furthermore, the shareholding structure of a family business is not very diversified compared to other types of businesses, with consequent more probable profit losses;
- The excessive centralization of control and management in the hands of the shareholder-founder can lead the latter to adopt opportunistic behaviors towards minority shareholders, who can be expropriated by the main company decisions and above all by their rights to receive dividends;
- Conflicts that may arise between family shareholders and the family outside the company.

In relation to these negative aspects, family businesses make use, in addition to the mechanisms already mentioned above, to governance mechanisms that make it possible to regulate the relationship between the company and the family itself. In particular, reference is made to the Shareholders 'Meeting and the Family Council, which are similar respectively to the Shareholders' Meeting and the Board of Directors. In the family assembly, every family

activity relating to a specific period of time is discussed and a constructive dialogue is promoted regarding the values shared by the family, namely the vision and the mission. The family council establishes the policies and rules that must subsequently be approved by the family assembly, which often delegates to the council the power to make decisions on its behalf. The family council interfaces with the Board of Directors in order to align the objectives of the family with those of the shareholders (for example, it submits decisions and policies affecting the company, such as the remuneration of family members, to the Board for approval). In addition, it is his task to resolve any internal family conflicts that may negatively affect the competitiveness of the company. The family council is the primary mechanism for alleviating type 4 agency problems, but it can also mitigate type 2 agency problems by ensuring that only family members who meet certain requirements can be appointed as managers in the family. ' business. In addition, it can also mitigate third-party agency problems by establishing rules under which family members can act as creditors and thus limit external lenders.

2 DIVIDEND POLICIES

2.1 Corporate governance and dividend policy: Outcome model vs Substitution model

The corporate governance issues described above also have a significant impact on the decision-making processes relating to the dividend policy. The latter has as its objective the definition of the cash flows to be paid to the shareholders over time, in order to ensure adequate remuneration for the risk borne by the shareholders and at the same time guarantee an efficient management of the liquidity risk of the company itself.

When dealing with the issue of dividend policy, it clearly emerges that its ability to create value in a vision of continuous and sustainable growth is less evident than investment policy rather than financial structure policy.

In fact, the investment policy has a significant impact on the sustainable growth of a company by aiming to ensure a growth in sales and their marginal profitability and taking care not to increase the invested capital in an immeasurable way. On the other hand, the financial structure policy affects business growth by defining the cost of the sources of financing, the WACC, with the aim of reducing it in such a way as to guarantee an adequate level of liquidity risk.

The dividend policy can in any case contribute to sustainable growth, allowing easy access to the stock and bond market, creating loyalty and diversifying the risk for shareholders. A fair return on the shareholder investment allows, in fact, the consolidation of a solid base of shareholders to whom one can turn to finance further investments. It should also be remembered that the value of the equity coincides with the present value of the expected cash flows (dividends) and that the dividend policy is an expression of this cash flow which depends on the company's ability to generate cash over time. The dividend policy, therefore, has the purpose of showing to the financial markets the sustainability of a level of shareholder remuneration over time based on the performance of the company by signaling to the market its ability to generate cash and remunerate appropriately shareholders and thus reducing the information asymmetry between the company and the market.

At this point, it is important to understand the link between dividend policy and corporate governance, according to four main aspects:

- Legal system;
- Board of Directors;

- Ownership structure;
- Compensation of top management.

2.1.1 Legal system

According to the agency theory, the dividend policy is able to reduce the agency costs that are generated due to the conflicting relationship between shareholders and management or between majority shareholders and minority shareholders. In any case, however, its effectiveness strongly depends on the type of legal system within which companies operate.

La Porta et al. (2000) assert that countries with common law legal systems, such as the US and the UK, guarantee greater protection to shareholders "outsiders" who, through the dividend policy, can more easily extract the liquidity generated by the company. On the other hand, however, in “civil law” legal systems, such as in Italy and Germany, the protection of outsiders is lower and this facilitates insiders to extract private benefits at the expense of outsiders.

LLSV have developed two models relating to the relationship between dividend policy and the legal system: the *outcome model* and the *substitution model*.

The *outcome model* argues that in countries with an effective legal system, outsiders are able to "force" insiders to distribute dividends, thus reducing agency costs; in fact, the greater the protection, the greater the possibility for external shareholders to force the distribution of dividends, thus discouraging the manager or controlling shareholders from extracting private benefits. Therefore, outsiders can, through their voting power, replace board members, facilitate hostile takeovers by selling their shares, or take legal action. From this perspective, dividends are the result of an effective system of legal protection for shareholders. In an effective system, in fact, minority shareholders use their legal powers to force management to distribute dividends, and thus preclude insiders from using a higher fraction of the firm's liquidity for personal benefits. Shareholders can do this by voting on board members who offer a better dividend policy, by selling shares to potential outside raiders, or by suing companies that waste too many resources on business for the benefit of insiders only. In addition, good investor protection makes the diversion of corporate assets legally riskier and much more expensive for insiders, resulting in a greater propensity to pay dividends. Therefore, the greater the rights of minority shareholders, the greater the extraction of cash from companies in the form of dividends. It is important to note that shareholders do not have specific dividend rights, but rather have more general voting rights available to oppose expropriation by insiders. A clear example from the United States is Kirk Kerkorian, who forced Chrysler Corporation to pay out its dividends in 1995-1996. As the majority shareholder in Chrysler, Kerkorian did not have specific rights to dividends, but he used the voting mechanism

to place associated members on the Board of Directors, and thus managed to force the board to distribute dividends.

In a cross-section of countries with different qualities of legal protection, the implication that better legal protection is associated with higher dividend payouts is testable. Consider a country with good shareholder protection, and compare two firms: one with good investment opportunities and one with low investment opportunities. Shareholders, who feel protected by the legal system, accept low dividend payouts, and high reinvestment rates, in the firm with good investment opportunities because they are aware that in the long run they will be able to extract high dividends. Conversely, a mature firm with low investment opportunities will not be allowed to invest in an unprofitable manner. Consequently, in the case of good legal protection, growing companies will have low dividend payouts compared to mature ones. Conversely, if shareholder protection is low, there is not necessarily such a relationship between payout and growth, however, shareholders will try to mine as much as possible immediately.

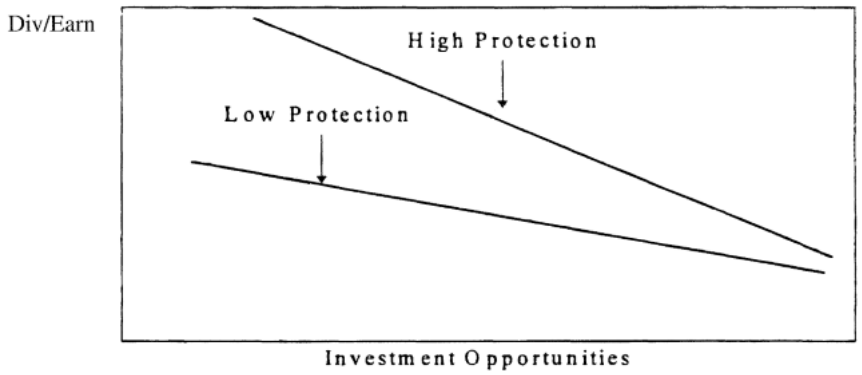

Figure 2 *Outcome model of dividends*
Source: La Porta R., Lopez-de-Silanes F., Shleifer A., Vishny R., Agency Problems and Dividend Policies Around the World, The Journal of Finance, 2000

The *substitution model* assumes that outsiders can gain an advantage as insiders are forced to use the capital market to finance investments. To raise market funding, insiders need to build a reputation for themselves to be seen as protectors of shareholder interests; this reputation is all the more important the less the protection offered by the legal system to outsiders. It follows that the flow of dividends will be greater the less the legal protection of outsiders is as insiders replace the legal system in protecting shareholders. Conversely, in countries with high legal protection of shareholders, the need for the reputation mechanism is low and therefore there is no need to pay dividends. From this point of view, therefore, companies with high growth prospects have a strong incentive to establish a reputation since they need

high external financing; for this reason, growing companies choose high levels of dividend payouts over companies with low growth opportunities. In any case, growing firms still need funds compared to mature firms, so the relationship between growth prospects and dividends is ambiguous.

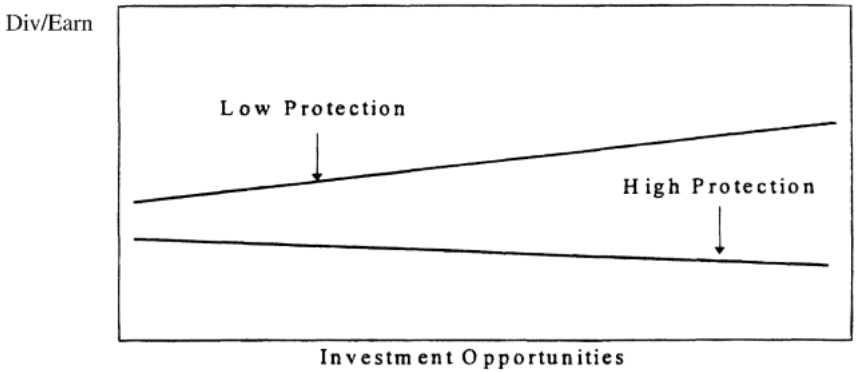

Figure 3 *Substitute model of dividends*
Source: La Porta R., Lopez-de-Silanes F., Shleifer A., Vishny R., Agency Problems and Dividend Policies Around the World, The Journal of Finance, 2000

LLSV applied the two models to a sample of about 4000 companies in different countries and a greater reliability of the outcome model emerged. Regardless of the model to which reference is made, scholars agree in any case that legal systems influence the choices of dividend distribution policies of companies.

2.1.2 Board of Directors

To deepen the analysis on the relationship between corporate governance and dividend policy, it is necessary to understand the impact of the structure of the board of directors on the choices regarding dividends, paying particular attention to the role of independent directors.

According to the *outcome model*, the higher the number of independent directors, the greater the control action on the management activity and consequently the higher the level of dividends.

According to the *substitution model*, management distributes lower dividends if corporate governance is weaker; therefore, as the number of independent directors increases, the dividends distributed decrease.

There is little empirical evidence relating to this topic: the only study is that of Hu and Kumar (2004) which highlights a positive relationship between the number of independent directors and the level of dividends paid, confirming the validity of the *outcome model*.

2.1.3 Ownership structure

Traditionalist theories of corporate governance assert that the presence of controlling shareholders, defined as *block shareholders*, favors better *monitoring* of management, thus reducing agency costs deriving from the risk of opportunism on the part of managers. It would therefore not be necessary for the shareholders to use the dividend policy to regulate the behavior of management, having other tools available, such as the right to vote and presence on the board of directors.

In summary, companies with concentrated shareholders do not resort to the dividend policy like companies with widespread shareholders to mitigate agency costs. This statement is confirmed by the study conducted by Hu and Kumar (2004), which highlights a negative relationship between ownership concentration and dividend paid. Georgen et al. (2003), in their analysis, show that German companies, characterized by concentrated shareholdings and a strong presence of banks, are less reluctant than American companies, characterized by widespread shareholdings, to reduce or even cut dividends in a given year. . In support of this study, Dwenter and Warther (1998) note that Japanese companies, characterized by being Keiretsu members, are less reluctant to reduce the level of dividends and the market reaction, following the dividend cut, is less punitive compared to the American context. In Japan, the strong presence of banks in the shareholding structure of companies mitigates information asymmetries and agency costs, overshadowing the usefulness of the dividend policy as a monitoring tool.

The ownership concentration also has a significant influence on the role of dividend policy as a *signaling* tool. Bancel and Mittoo argue that in market-oriented countries the signaling effect of the dividend policy is highly important, while in systems oriented towards financial intermediaries it is lower. This result is in line with what was described in the previous chapter: in fact, in systems oriented towards financial intermediaries, the role of banks within company management is very significant; this translates into greater control over the work of managers and a reduction in information asymmetries, resulting in less use of the dividend policy as a *signaling* tool.

In this context, Jensen and Meckling analyzed the impact of the presence of management in the company's shareholding structure: the greater the shareholding in the hands of the management, the greater the alignment of interests between ownership and control; this

leads to a reduction in agency costs and less reliance on the dividend policy. Fenn and Liang come to a slightly different conclusion, which empirically demonstrate that management's participation in the shareholder structure has a significant impact on the dividend policy only in companies characterized by greater problems of information asymmetries and agency costs, or in mature companies or companies lacking profitable investment projects. In companies not exposed to agency problems, according to the two scholars, management's participation in the company's shareholding structure would not have an impact on the dividend policy.

2.1.4 Compensation of top management

The structure of the manager's remuneration package is one of the most used corporate governance tools to align the interests of management with those of the shareholders, therefore the relationship between dividend policy and executive remuneration mechanisms is being studied by scholars.

In the next chapters the topic will be explored, however it is possible to list the following studies relating to this area:

- Bhattacharyya et al. (2008) have shown that the best CEOs, generally with higher than average remuneration, are able to find more profitable investment projects and therefore tend to reinvest the profits generated rather than distribute them in the form of dividends;
- Lambert et al. (1989) assert that if the executive remuneration package also includes stock options then management is less inclined to distribute dividends. In fact, scholars argue that as the level of dividends increases, the value of the shares decreases, therefore they are more likely to reinvest the profits generated in profitable investments with the aim of increasing the price of the shares;
- Hu and Kumar (2004) argue that managers whose compensation is linked to non-share price instruments, such as fixed salary, are more likely to pay dividends, as they tend to compensate for any bad strategic decisions with a generous distribution of dividends.

2.2 Theoretical models on the subject of dividends

Dividend policy is one of the most studied and unresolved issues of economics and finance. Black (1976) wrote "… the harder we look at the dividend picture, the more it seems like a

puzzle, with pieces that just don't fit together". Even today Brealey and Myers include dividend policy among the ten unsolved problems of corporate finance.

There are numerous theoretical contributions that have followed one another over time: Miller and Modigliani (1961) develop the theory of the irrelevance of dividend policy, to which the theory of tax preferences is linked; Bhattacharya (1979), Miller and Rock (1985) consider the dividend policy as a tool to give a signal to the market ("The signaling theory"); Easterbrook (1984) and Jensen (1986) link dividend policy to agency theory; finally, among all the empirical studies, the Lintner model should be mentioned.

2.2.1 Modigliani-Miller and the theory of tax preference

Modigliani and Miller were among the first to analyze the issue of dividend policy with the theory of the irrelevance of the dividend policy for the purpose of creating value for the company. The two scholars show that, in a perfect capital market characterized by:

- Absence of taxation;
- Absence of information asymmetries between shareholder and manager and of agency costs;
- Absence of transaction costs;
- Rationality of market operators;
- Absence of financial disengagement costs;

corporate dividend policy choices do not have a significant impact on the purpose of creating corporate value, and therefore on shareholder wealth.

However, in an imperfect capital market it is necessary to take into account, for example, the presence of different tax and taxation regimes between dividends and *capital gains* : therefore the *theory of tax preferences is born* , which explains how the dividend policy is able to create value by virtue of the different tax regimes between the two forms of return and the consequent tax preferences of the shareholders.

There are two drivers to consider in order to understand the impact of taxation on payout policy choices: taxation on dividends and *capital gains* (tax base and rates) and the investment period expected by shareholders. It seems obvious that when there are different tax regimes, one form of return is preferred over the other. However, even if the tax base and the rates are the same, it must be remembered that dividends are taxed immediately upon distribution while capital gains are taxed at the time they are realized. Therefore, shareholders with a medium to long term investment period may prefer that the company does not distribute dividends and reinvest the profits generated in profitable investment projects; in fact, such

shareholders would pay a lower effective tax burden on capital gains than that on dividends, by virtue of the deferral of payment.

In summary, companies prefer one form of return over the other by virtue of the lower tax burden of their shareholders, giving rise to the so-called customer effect (dividend clienteles) whereby companies distribute higher dividends if the taxation of dividends for the most of the shareholding is lower than that of *capital gains* and vice versa. Indeed, one can find shareholders who prefer dividends and on the other hand companies that do not distribute dividends at all and the shareholders themselves seem to be in complete agreement with this policy. Given the wide variety of needs, therefore, it should come as no surprise that shareholders are keen to invest in companies that are characterized by dividend policies in line with their interests and preferences. Shareholders with high tax brackets, having no interest in the flows associated with dividends as they would be tax disadvantaged, prefer to invest in companies that pay low dividends or do not pay them at all. Conversely, shareholders with low tax brackets, and therefore in greater need of cash, prefer to provide their capital in companies that pay high dividends. This phenomenon whereby an investor has the propensity to invest in companies with dividend policies that reflect their interests is called the "customer effect". A study by Pettit (1977) showed evidence of the presence of this client effect. Indeed, this study shows that investors with less capital and with an older age are inclined to invest in companies that pay high dividends, while young and wealthy investors invest in stocks with lower dividends. Furthermore, dividend rates show a decrease as the tax disadvantage related to dividends increases. Therefore, the main consequences of the customer effect are the following: first, each company is characterized by the type of shareholder / investor it wants since it is the dividend policy adopted by the company that attracts one type of investor rather than another; secondly, it is not easy for a company to change a dividend policy consolidated over the years. An example, in this sense, are the companies of the US telephone sector, which typically have distributed high dividends over time, attracting a certain class of investors; when these companies decided to implement a diversification policy in other market sectors, and therefore needed large amounts of cash to reinvest, it was absolutely not obvious and easy to have to explain a reduction in the level of dividends to shareholders.

2.2.2 Signaling theory

Spence in 1974 developed the signaling theory on the assumption that, in the presence of information asymmetries, the management of a company sends signals to those who have less information (possible investors), so that the latter can make better decisions. This theory also appears to have a connection with dividend policy.

Bhattacharya, Miller and Rock assert that the management (insider), by establishing a certain level of dividends and their rate of growth, send a signal to external investors (outsiders) about the situation of the company. In fact, a possible increase in the level of dividends could signal to the market an increase in the company's future profitability. In other words, management would provide information to the market about the ability to sustain a higher level of dividends than in the past, by virtue of higher future profits. The signal usually appears to be credible as increasing the payout level, for example to imitate the behavior of competitors, can lead to a future reduction of the same, but above all a highly negative reaction from the market with significant effects on the value of the shares. The main implications, which can be extrapolated from this model, are the following:

- Companies distribute dividends to send positive signals to investors;
- Companies are less likely to decrease the level of dividends because this could have a very negative reaction from the market;
- Companies do not increase the level of dividends until they are certain that they can keep this level stable, therefore the dividend distribution trend is more muted than that of profits;
- In some cases, companies forgo projects with positive NPV in order not to cut dividends.

2.2.3 Agency theory

A further field of application of the dividend policy concerns the agency relationship between management and shareholders. There are two main theoretical contributions: Easterbrook with “Two Agency costs Explanation of dividends” and Jensen with “Agency Costs of Free Cash Flow, Corporate Finance and Takeovers”.

Easterbrook to the question "what is the effect of a consistent policy of paying dividends?" he replied that dividends exist as they influence corporate financing policies, reduce available cash and induce companies to seek new liquidity. According to the author, managers are not perfect shareholders' agents and pursue their own interests which usually diverge from those of other actors. For this reason, the aforementioned agency costs arise which are expressed in *monitoring, bonding* and residual loss costs.

One form of agency cost is the cost of monitoring borne by the shareholders, however since in many cases the shareholder structure is dispersed, the individual shareholder does not have the incentive to carry out the right monitoring as the cost is higher than the benefit for the same. (free-riding).

A second type of agency cost is the risk aversion of managers. Shareholders typically have a highly diversified equity portfolio, are therefore risk neutral and prefer managers to invest resources in risky but highly profitable projects. On the other hand, managers, whose source of income strongly depends on the fate of the company, are risk averse and choose safer and therefore less profitable investment projects. Furthermore, it must be remembered that riskier investment opportunities enrich the shareholders at the expense of the creditors, as the shareholders do not pay any form of gain to the bondholders, however the latter still take part in the risk of bankruptcy of the company. Creditors, aware of this situation, demand higher interest rates.

According to Easterbrook, the monitoring problem and managers' risk aversion are less relevant if the firm is constantly on the market for new capital. In fact, when the firm needs new stocks, institutional investors and / or other financial intermediaries monitor the firm's business for the benefit of shareholders and potential investors. The same happens when the firm requests new loans from banks. For this reason, the distribution of dividends makes it possible to reduce agency costs as management has to raise funds more frequently from the market and therefore be subject to monitoring by institutional investors and banks. In summary, the main added value in constantly keeping the company in the "market for capital" is the effective monitoring carried out by the capital providers on the managers.

Another contribution from this theoretical strand is that of Jensen. The latter suggests that the dividend policy addresses agency issues between insiders and external shareholders. Indeed, the lower profits are paid to shareholders, the greater the likelihood that insiders will use the liquidity for personal use or invest it in projects that are not profitable for the company but capable of providing them with private benefits. As a result, outside investors prefer dividends rather than retained earnings. Theories differ as to how external shareholders currently incentivize firms to pay dividends, however, the key point is that the lack of dividend distribution leads to the diversion or waste of the firm's resources and cash. The approach based on agency theory differs from the assumptions of Modigliani and Miller, highlighting two relevant issues. First, the firm's investment policy cannot be independent of the dividend policy, and in particular, the distribution of dividends can reduce investment inefficiency. Secondly, the allocation of all the profits of the firm is not granted to shareholders on a proportional basis, and in particular the insiders may have preferential treatment through the "asset diversion", the "transfer prices", while maintaining the policy of constant investment. To the extent that dividends are paid proportionally, they benefit external shareholders in connection with the possible expropriation of retained profits. Therefore, the distribution of dividends reduces the liquidity available to management, which therefore has less possibility of using the company's resources in sub-optimal uses or having direct benefits for it, to the

detriment of the company and its shareholders. For this reason, the dividend policy has a disciplinary effect on the behavior of managers.

2.2.4 The Lintner model

The most well-known contribution on the subject of dividend policy is undoubtedly the model developed by Lintner in 1956. According to the author, the dividend policy is characterized by two main parameters: (1) the target dividend payout ratio and (2) the speed with which which current dividends are adjusted towards the target payout ratio. In this sense, two main characteristics relating to the dividend policy are observed:

- companies tend to define a target dividend payout ratio in accordance with the amount of investment projects with positive NPV (net present value);
- earnings increases are not always sustainable. As a result, the dividend policy does not change as long as managers observe that new levels of earnings are sustainable.

Companies, therefore, focus more attention on changes in the pay-out ratio rather than on the absolute value of dividends and change the level of dividends from one year to the next in order to establish a stable and / or growing trend towards a payout ratio target, defined a priori. Companies maneuver the level of dividends following long-term changes in profits and, as management is unwilling to decrease the pay-out from one year to the next, the transient changes in profits do not have an impact. immediate influence on the dividend for the current year. Therefore, it is possible to explain the dividend decisions by managers through the following equation:

$$\Delta D_{it} = a_i + c_i (D_{it}^{*} - D_{i(t-1)}) + u_{it}$$

where is it:

- $D_{it}^{*} = r_i * P_{it}$;
- r is the target payout ratio and P_t are the profits for the current year after taxation;
- ΔD_t is the change in dividends;
- D_t and D_{t-1} are the number of dividends paid in the years identified with the date t;
- The undersigned identifies the single company;

D_{it}^{*} represents the dividends the firm pays if the dividend is based only on the firm's target pay-out ratio, applied to current profits. Parameter c_i identifies the part of the difference between the target dividend D_{it}^{*} and the real payment in the previous year, which the company wants to reflect on average in the current dividend, as an increase (decrease) compared to the payment of the previous year. The cost a_i, according to the empirical study

by Lintner, is usually positive as it represents on the one hand the lower propensity of management to cut dividends and on the other the willingness of management towards stable and / or increasing growth in the distribution of dividends. in time. Finally, the variable u_{it} represents the deviation between ΔD_{it} and the expected one, due to possible errors in the values assigned to the parameters c and r.

An application of the Lintner model is the following:

- Assumption: a company paid a dividend per share of € 4.20 in the last period (t-1) compared to a net profit of € 7.00. the target payout is equal to 60% and the adjustment factor (c) is equal to 50%. Net profit for the current year (t) is € 9.0;
- If the company immediately adjusted dividends to the target payout ratio, it would have to pay out a dividend per share of € 5.4, or 60% of current income, with an increase of € 1.2 per share compared to the previous year.
- Applying the Lintner model, the company will pay a dividend per share of € 4.8, or an increase of € 0.6 equal to 50% of $ 1.2.
- If earnings per share in subsequent years remain stable at € 9.00, the increase in the level of dividends compared to the previous year would be € 0.3 in t + 1, € 0.15 in t + 2 and so on. Therefore, if the level of earnings remains constant over the long term, the change in dividends will tend to zero.

The validity of the model was demonstrated by Fama and Babiak, in fact the latter was able to explain the choices relating to the dividend policy in about 85% of the companies analyzed.

3 REMUNERATION POLICIES OF THE CEO

3.1 Incentive and Agency Theories and CEO Compensation Schemes

The remuneration of top management, in Italy and in the world, has been a very relevant and controversial issue for decades. Furthermore, if over the years some attention has always been paid to managerial remuneration, the 2008 crisis caused further concern on the part of public opinion, financial institutions and regulators regarding the issue in question.

Faced with an unprecedented economic crisis, most of the company's top managers found themselves having to justify ever increasing and extremely incomprehensible salaries, if compared with the company performances achieved. It should also be remembered that in Anglo-Saxon countries the difference between the CEO's salary and the salary of an average worker has actually increased; this entailed the intervention by the American SEC (Securities and Exchange Commission), which imposed the obligation on companies to communicate the wage gap between the remuneration of the CEO and the average worker belonging to the same company. Numerous controversies have also emerged in our country regarding the level of remuneration of top management.

However, it is necessary to focus not only on the amount of managers' remuneration, but in general on how those who manage companies are remunerated, and therefore understand how their remuneration package is typically structured. To this end, it is essential to understand the role and main function of the remuneration policy, describing the various theories that have occurred over time starting from the essay illustrated by Berle and Means (1932).

The economic literature of the sixties had a significant influence on the evolution of modern theories of business organization, focusing attention on the role of top management and business growth. This line of literature stands in stark contrast to the neoclassical theories, unable to understand the evolution of the market, which becomes more demanding, and above all, the growth in the market of large companies in which there is a separation between ownership. and control and managers play an important role. The most relevant criticism relates to the concept of a price-taker firm, not capable of having an impact on the behavior of subjects and on the structures of the sectors. Marris (1964), starting from the separation between ownership and control conceptualized by Berle and Means (1932) defines the "managerial capitalist" enterprise, in which the shareholding is widespread and therefore there are many small shareholders opposed to the figure of the manager. On the one hand the objective of the shareholders is to maximize the value of the company, on the other hand

the managers are inclined to increase the company growth in order to increase their remuneration, reputation and prestige. At some point, stressing growth decreases profit so there are constraints for managers. The shareholders, being many and scattered, do not have the incentive to go against the decisions of the manager (free-riding problem), therefore the solution is the market for corporate control. In this sense, therefore, the only way to incentivize the manager is to make him lose his job, through take-over or hostile takeover. In fact, the shareholders, starting to sell their shares, favor the entry into the company by other external shareholders, who are usually inclined to change management; the latter monitors two main indicators: the growth rate of the company and the Valuation Ratio of the same, or the ratio between the market value of the company's shares and their book value. The Valuation Ratio depends both on the growth rate (first positively then at some point negatively) and on the profit of the firm; in the event that the manager exceeds the limit growth rate, the Valuation Ratio decreases and consequently increases the take-over risk. For this reason, the manager has an incentive to find the balance between the monetary and non-monetary benefits (reputation, prestige) of growth with the need for job security, or for a value of the Valuation Ratio greater than or equal to one. Marris's theory, combined with Simon's theories relating to personal incentives for management's discretionary behavior, underlies contractual theories that are based on incentives (in particular, the agency theory).

According to managerial theories, therefore, the firm is defined as a well-defined but changing set of resources in which management plays a particularly important role in defining the growth and profit of the firm.

A further contribution, belonging to managerial theory, is that of Williamson (1964), who focuses on the phenomenon of the separation between ownership and control of the firm. According to the author, the ownership of large modern "corporations" is distributed among many small shareholders, who are not inclined to have direct control over the management of the company; therefore, management is entrusted to external parties, managers, who may have a different interest and aversion to risk from those of the property. In fact, shareholders are interested in the profitability of the company and the market value of the shares in their possession while managers, in addition to job security, seek remuneration, prestige and reputation. This divergence between the objectives of the two parties generates problems of inefficiency as shareholders, not having the right information and skills available to control the discretion of managers, may be subject to opportunistic behavior on the part of management.

Managerial theory therefore focuses on the problem of controlling the behavior and work of management and criticizes the neoclassical doctrine on the assumption of the objective of maximizing profit. The contributions of scholars differ mainly on the objective function that is pursued by management. According to Baumol, those who manage the company have an

interest in significantly increasing the size of the company in order to guarantee prestige and reputation. Williamson believes that the ultimate interest of managers is to increase their power through the accumulation of funds at their disposal, while for Marris the ultimate goal of management is the growth of the company. It is important to highlight that, in all these theoretical models, profit is considered by managers, not as an objective, but as a constraint, which must be respected to ensure shareholders a fair return on their investments and the safety of the workplace for management. Following this line, therefore, a too low level of dividends, due to the failure to reach the maximum profit, causes the valuation of the shares to decrease with consequent exposure of the company to the phenomenon of takeover, which is usually not well liked and accepted by management.

Continuing with the literature, the research of Jensen and Mecking (1976), which is based on agency theory, reaffirms the idea already expressed by Adam Smith, according to which, when ownership and control do not coincide, a conflict of interest arises. between shareholders and controlling entities. An agency relationship, as already expressed in the previous chapters, is defined by a contract under which the principal delegates the agent in pursuing certain activities and objectives, which must be in line with the interests of the delegating subject. In the ideal case, the objectives defined a priori maximize the utility of both parties. In the event that the objectives defined at the contractual level maximize the utility of one of the two parties, then agency problems arise that cause costs of inefficiency within the company. Therefore, the agency theory highlights in a relevant way the conflict between the shareholder, or owner of the company, and the manager, the person in charge of managing the company. In this sense, the ultimate purpose is to stimulate management to maximize shareholder utility, in fact "we cannot expect company executives, called upon to manage other people's money, to devote themselves to this activity with the same care with which the holders of a stake in a company would act in the administration of their money (……). In the management of these activities, therefore, negligence and waste will always be present." (Smith, 1776).

So why is it important to make the objective functions of managers and shareholders coincide? The inefficiency relating to agency problems is expressed in costs of various kinds, for example monetary and social, resulting in a loss of value for the company; moreover, it can generate negative externalities for the environment outside the company, therefore for the community, through the decrease in well-being. In this context, therefore, an absolutely important role must be played by Corporate Governance, which has as its ultimate goal that of solving agency problems in order to maximize the value of the company.

One of the main causes of inefficiency within the company is constituted by the concept of "contract", which regulates the relationship of the company with the external environment,

in particular with the market. In this sense, it is worth mentioning the contribution of Coase (1937), which gives rise to the theories of the firm. According to the scholar, the allocation of resources within the company must follow the principles of authority and direction, and not the logic of the market: the company must internalize all the processes for which the use of the market, through the exchange and the contracts, turns out to have a higher cost than the use of authority and address.

Subsequently, Alchian and Demsetz (1972) partially criticize the idea expressed by Coase, asserting the importance of contracts in regulating relationships even within the firm. For the two scholars, the capitalist firm is characterized by a set of productive inputs owned by different subjects and the contracts define the joint implementation of production processes that involve all the suppliers of production inputs. Joint or "team" production can lead to frequent problems of information asymmetry, due to the fact of not being able to control the performance of the participants in the production process. For Jensen and Mecking (1976) the problem of monitoring, and therefore of agency costs, is present regardless of whether or not there is a joint production.

The definition of a company as a "set of contractual relations" focuses attention on the efficiency of the contracts, therefore on their ability to ensure that the objectives of the principal and the agent, defined at the contractual level, are achieved without the principal enduring a excessive cost of monitoring. How is the efficiency of a contract measured? An ex-ante efficiency can be defined, when all the possible scenarios are established a priori and the decisions made ex-ante; therefore, a contract is efficient if the company statute manages to produce the best result for all the stakeholders involved (Zingales, 1998). Conversely, we can define a so-called “Pareto” efficiency (ex-post efficiency), when there is no other contract that is capable of improving the condition of a subject without, at the same time, worsening that of another subject. In agency relationships it is difficult to find efficient ex-ante contracts, in fact so-called “incomplete” contracts are usually stipulated, ie not able to include ex-ante all the possible scenarios that may occur.

In addition, Coase (1937) introduces a concept that defines the "cost of using the price mechanism", or more simply the "cost of the market". Subsequently, Coase himself expresses the same concept with "cost of market transactions". This concept arises from the fact that, in order to conclude a market transaction, costs relating to negotiation, achievement and strengthening of contractual conditions must be incurred. According to the author, the concept of transaction costs, totally absent in the neoclassical economic theory, makes it possible to understand the very existence of the firm: the firm exists because it is efficient and is convenient whenever the costs of organizing transactions internally they are lower than the cost of using the market. Although it is still possible to produce in a totally decentralized way

thanks to the presence of contracts, the fact that it is necessary to bear a cost for these transactions facilitates the emergence of companies.

The company was therefore born as an institution capable of reducing these transaction costs, replacing the mechanism of market prices. Coase's analysis has highlighted how transition costs can have a negative effect on agency relationships, however it is necessary to mention another concept, no less important: information asymmetry.

Information asymmetry, as already mentioned above, is a condition for which a subject has more or less information than the counterparty with whom he relates. The presence of information asymmetries explains, for example, the reason why savers rely on banks to carry out investment transactions. Compared to savers, in fact, banks have more information and above all they have greater capacity regarding possible investments. Therefore, savers are willing to pay a cost to use the investment services provided by banks. The same situation occurs within a company: shareholders, in order to achieve the maximization of company profit, want to hire the best managers to manage their company. However, the information asymmetry is present in the shareholder-manager relationship, in fact the shareholder is unable to have a complete assessment of the manager during the hiring phase (adverse selection) and also fails to have constant and timely control over decisions that the manager takes (moral hazard). As already explained above, "adverse selection" is a problem of pre-contractual opportunism that emerges when a subject, during the stipulation of a contract, has more information, especially private, than the counterparty with whom he is dealing. Moral hazard, on the other hand, is a problem of post-contractual opportunism, as often the behavior of the person to whom a certain activity has been delegated is not observable and verifiable; only the result is observable, therefore it may happen that the agent's behavior is not in line with what the principal expects.

Therefore, due to the occurrence of these information asymmetry problems, scholars have placed particular attention on how to incentivize the agent, and therefore the manager, to act in the interest of the principal, the shareholders. At this point, it is necessary to consider the various forms of remuneration of the manager.

In the event that the manager is paid with a fixed salary, the manager's goal is to minimize his effort, and in the absence of observable and verifiable variables on which to base an optimal contract, he is incentivized to exploit his information advantage to detriment of shareholders. The managerial incentive has the purpose of intervening in the incentive structure of managers, in order to align the interests between shareholders and management. Therefore, it was decided to link the manager's remuneration to the performance achieved by the company. Much attention has been paid to this solution, mainly due to Jensen's theory. The

scholar has shown how managers were incentivized to obtain excellent results with the so-called Pay-Performance principle, according to which the manager must be paid with a remuneration that depends at least in part on the results achieved.

However, although it has received particular attention, Pay-Performance solves the problems of the agency in a small way, in fact it can be understood from the enthusiasm that stock-options aroused in the late nineties, a form of equity incentive that apparently it allows managers to be incentivized without causing an excessive cost to shareholders. Stock options are options that a company grants to managers (or to a lesser extent also to employees), who can purchase shares of the same company, in a given period, at a given price, called the “strike price” or exercise price. This form of remuneration appears to be apparently free, as the manager obtains earnings if he manages to increase the value of the company's shares without impacting the company accounts. In reality, however, when the manager sells the shares in his possession on the market, an excess of supply is created which causes the price of the shares to fall and therefore the value of the shareholdings; this effect is called the “dilution cost”. In the nineties, in any case, it must be said that the growth of the most important world stock exchanges was dizzying and this meant that the dilution cost, due to the exercise of stock options, was totally offset by the trend of rising prices. The highest point of this growth process occurred in the late nineties and early 2000s, in the period of the so-called "speculative bubble", when stock prices reached impressive values, resulting in significant gains for managers in possession of stock options. . For these reasons, stock options, despite being a theoretically highly efficient incentive mechanism, has received a lot of criticism, especially following reckless operations by managers (such as accounting manipulations) which aimed to inflate the profits of the companies. company, hiding the serious financial distress situation.

3.1.1 The incentive contract

The relationships between ownership and management, as mentioned above, especially in the case of separation between control and ownership, are more complex than one might imagine. To minimize the problems of information asymmetry, which occur in the phenomena of adverse selection and moral hazard, and therefore align the personal interests of management with those of the property, the Board of Directors, appointed by the shareholders, has the task of defining a contract with the management with the aim of obtaining the maximum possible profit of the company. This contract therefore plays a decisive role in regulating the remuneration methods for top management and must be able to compensate for the failure of the Board of Directors to have active and complete control over the activities of managers, whose final output constitutes the only observable aspect. In

addition, obviously, all the needs and constraints of the counterpart, and therefore of the management, must be taken into consideration. These constraints are mainly: the "participation constraint" (individual rationality) and the "incentive compatibility constraint". The first constraint means that the manager, in order to be willing to take on the position, wants to receive at least his level of utility, or the minimum level of remuneration deemed acceptable by the manager for this position. The principal must assure the manager that he will receive at least this level of backup utility. The second constraint is expressed in the fact that the principal cannot choose the action but can only influence it through an appropriate incentive scheme. Given the incentive scheme set up, the agent (manager) will choose the action that maximizes his personal interest, the outcome of which also satisfies the principal.

At this point, we can introduce the notation necessary for the formulation of a possible remuneration model. First of all, π indicates the expected profit of the firm, with e^{i} with i ∈ {H; L} the manager's "effort" (i.e. a measure of his commitment / effort in the activity he performs, meaning with e^{H} a high commitment and with e^{L} a low commitment, considering only two discrete states and not a continuous one) and with ϙ ∈ {G; B} the contingent case (with G "Good state" and with B "Bad state"). The scenario ϙ is indicated in the superscript of each expression.

The scenarios ϙ and the “effort” of the manager *e* condition the expected profit, therefore π is a function of ϙ and *e.* With the aim of calculating the value of π, the conditional probabilities of each partition of the event space are as follows:

$$P(\pi^{\varrho} / e^{i}) = p^{i}$$
$$P(\pi^{\varrho} / e^{i}) = p^{i}$$

We therefore have:

- High commitment case ($e = e^{H}$):

$$P(\pi^{G} / e^{H}) = p^{H.}$$
$$P(\pi^{B} / e^{H}) = 1 - p^{H.}$$

- Low engagement case ($e = e^{L}$):

$$P(\pi^{G} / e^{L}) = p^{L}$$
$$P(\pi^{B} / e^{L}) = 1 - p^{L}$$

With $p^{H} >> p^{L}$ and $1 - p^{H} << 1 - p^{L}$, that is, it is assumed that it is much more likely that the positive state will occur in the event that there has been a high commitment on the part of the manager, rather than the other way around.

We then indicate with y the manager's income, with U = U [f (y), g (e)] his utility function (with $U \propto f(y)$ and $U \propto g(e)^{-1}$ and with $U^* = cost$ its reserve utility. The company, first of all, must respect the participation constraint and therefore must ensure that:

$$U(y^H, e^H) = U^*$$
$$U(y^L, e^L) = U^*$$

From the system is therefore possible to identify y^H and y^L such that the manager's commitment is both, respectively, e^H and e^L.

Therefore, the expected profit of the company, in relation to the manager's commitment, will be:

$$\pi = E[\pi^H] - y^H = p^H \pi^G + (1 - p^H) \pi^B - y^H$$
$$E[\pi^L] - y^L = p^L \pi^G + (1 - p^L) \pi^B - y^L$$

We can therefore verify that y^H satisfies the participation constraint (ensuring the minimum level of reserve utility) and extracts the optimal level of effort and ^{H}, such that the firm's profit is maximized.

However, since the level of effort *and* is not observable, as it is not possible to make an effective and continuous control over the work of the manager; the latter, despite being remunerated y^H and thus having ex-ante promised to commit himself with an effort equal to e^H, has a strong personal incentive to lend e^L, thus making the negative state in which the profit is not maximized much more probable of the company. In summary, the manager behaves in an opportunistic manner towards his principal (the phenomenon of "shrinking").

To overcome this important problem, the firm offers the manager an incentive contract that links his income y to the firm's expected profit π. Clearly this solution exposes the firm to the risk of obtaining a lower profit, but this contract has the objective of aligning the interests of the counterparties, in order to make the positive state more likely and a higher average remuneration.

Tying then expected profits and wages, the company offers y^G if the manager gets π^G and y^B if he gets π^B. To determine y^G and y^B it is sufficient to solve the following system with the participation and incentive constraints considering the different probabilities with which events occur:

$$U[f(y^G)\, p^H, g(y^B)(1 - p^H), e^H] \geq U^* \text{ participation constraint}$$
$$U[f(y^G)\, p^H, g(y^B)(1 - p^H), e^H] \geq U[f(y^G)\, p^L, g(y^B)(1 - p^L), e^L] \text{ incentive constraint}$$

The average manager income E (y) = $p^H y^G + (1 - p^H) y^B$ is greater than the y^H found without the incentive contract of a certain Δy. On the other hand, the firm will have an expected profit less than a quantity equal to Δy. This difference constitutes the so-called agency cost. This agency cost represents the cost incurred by the entrepreneur to align the manager's interests with his own, to control the manager's work and therefore to obtain lower profits due to the sub-optimal effort on the part of the management ("managerial slack"). In fact, in the presence of information asymmetry, one of the two parties must bear a cost to obtain the best balance; the incentive contract allows to align the interests of the parties involved and determines the sharing of the risk. The price of profit sharing is that on average the manager's income will be higher and the entrepreneur's expected profit will be lower.

There are several possible ways to link income y to expected profit π: annual bonuses, stock options and severance conditions.

Annual bonuses are extraordinary components of income that are distributed to managers in the event of profits or sales above certain target objectives. However, they can lead managers to have a very short-term vision, generating the problem of "investment myopia".

Stock options are real call options that are assigned to management with the aim of incentivizing its work in the long term. Since these are options, they have an expiry date, a strike price and produce a gain for the manager equal to the positive difference between the market price at the time of sale of the share and the strike price of the derivative. Although these tools make it possible to effectively link remuneration to the price of the company's shares, the profits generated by stock options may not reflect the good work of the manager, but simply be due to external conditions, for example good general market conditions. Despite this, it is one of the best known and most used incentives.

The conditions to end relationship constitute contractual agreements that outline the mode of exit from the ratio of work. Generally, they include significant monetary amounts by way of liquidation and the permanence for several months, after the conclusion of the assignment, of the ordinary salary and of all ancillary benefits such as cars, real estate, health coverage, etc.

In any case it seems likely, for all the alternatives mentioned above, which the CEO acts in a manner risky and disadvantageous in respect of shareholders, aiming at the target of increasing artificially one of the mechanisms incentives for personal gain. Although such behavior may appear very unlikely, however, due to the great influence that management and CEO often manage to have on the Board of Directors - cases of this kind occur very frequently.

3.1.2 Composition of the remuneration of the CEO

Executive compensation represents the system of mechanisms and methods that regulates the remuneration of the members of the top management of a company, meaning with them the managing directors, the directors and more generally the top management. Its main function is to optimize the cost of production and organizational factors with respect to performance and to align the behavior and interests of the management (agent) with those of the shareholders (principal). Therefore, for shareholders, the remuneration policy is nothing more than a corporate governance tool, which makes it possible to direct ex-ante the behavior of managers towards the defined objectives. The manager's remuneration policy consists of three main aspects:

- The level of total remuneration, or the cost that the shareholder intends to incur to achieve the set objectives. This choice influences the manager's search for certain markets rather than others;
- The relationship between remuneration and performance, i.e. the performance parameter and the change in remuneration as the results change;
- The composition of the remuneration package, understood as the set of the fixed component, the variable component and the incentives linked to short and long-term performance.

It should be noted that the Corporate Governance Code of companies listed on the Italian Stock Exchange[6] the term "Executive" means executive directors and managers with strategic responsibilities. Furthermore, according to the Code, the remuneration of the Executives must be:

- able to attract, motivate and retain the best talents on the managerial market;
- able to align the interests of management with the ultimate objective of the shareholders, which is expressed in pursuing a growing and sustainable creation of business value;
- linked to the agreed objectives and the economic performance achieved.

Executive compensation therefore takes care of defining the most suitable and effective remuneration package to achieve the aforementioned objectives. This package mainly consists of:

[6] The main references of the Executive Compensation are: Art. 2389 of the Civil Code, the Corporate Governance Code of Borsa Italiana, July 2014, art. 114 bis of the Consolidated Law on Finance introduced by Law 262/2005, the Issuers' Regulation and the Recommendation 2009/385 / EC of the European Commission

- fixed remuneration → usually linked to the job and activities carried out by the manager, it can be received in the form of gross annual remuneration, or, in the case of directors, as an emolument;
- variable remuneration → is the most important and significant component of managerial remuneration and typically differentiates between short-term and long-term variable incentives, depending on the objectives to be achieved;
- set of benefits → means a variety of additional benefits that especially large international companies provide to their managers (for example company car and medical insurance). These benefits are especially useful for the well-being of the person.
- ancillary contractual clauses, for example the “golden parachutes”.

At this point, let's go into the individual components of the remuneration package in detail.

The **fixed** or contractual **remuneration** represents the basis of the manager's remuneration package and can be defined as “the minimum value that the reference organization attributes to a specific person, in line with the professionalism required for the role covered and with the professional background. From the point of view of the recipient, on the other hand, this amount is considered as the minimum amount of income aimed at guaranteeing financial needs and the general cost of daily life given a specific social, economic and financial context”(Cutillo, 2012). One of the characteristics of the fixed component is certainly its stability and continuity over time, however it is not the most important item with regard to executive compensation. This component is typically linked to the tasks and responsibilities inherent to the role covered (Pay for job), to the performance achieved and verified by means of performance evaluation systems (Pay for merit) and to the skills required by the role (Pay for competence). It is necessary to remember that, to distinguish the different roles within an organization, the most effective method is the "job evaluation", through which specific scores are assigned in an objective and systematic way to each element characterizing a company position. This method has the purpose of minimizing the subjectivity of remuneration policies and therefore of motivating the differences in remuneration between roles within an organization.

It is therefore essential to understand what the optimal level of this component is. The setting of a rather high level of the fixed remuneration can represent on the one hand a factor of rigidity for the company as it is a cost that weighs on the operation and on the income statement of the company, on the other hand it can decrease the component variable to be matched to managers. Particular attention has been paid to this last aspect by the regulatory institutes as variable remuneration has caused numerous problems and distortions in the

behavior of managers in recent years. Furthermore, the fixed remuneration represents the reference benchmark for the definition of the other components of the remuneration package, therefore setting an optimal value ensures that managers are not incentivized to behave in an opportunistic manner and the shareholders to pursue the goal of creating value. of the company without incurring high risks. In any case, the current economic and financial results must always be taken into consideration, which represent the driver for establishing a just and equitable remuneration for management.

The **variable remuneration** truly represents the incentive system to achieve the objectives and desired results and align the interests of shareholders and managers, however, as mentioned earlier, they have encouraged risk taking and dangerous behaviors in certain situations they have led to numerous failures in various sectors ("rewards for failure"); for this reason, for many scholars, the incentive system is itself an integral part of agency costs. In fact, it should be remembered that this system must be used "to achieve efficiency advantages but above all organizational effectiveness" (Gabrielli, 2010).

Variable remuneration is often distinguished on the basis of the time horizon and the objectives that must be achieved, however it is possible to classify this remuneration method in a complete way on the basis of:

- type of remuneration → there are mainly three forms of payment of variable remuneration: (1) monetary (one-off cash sum), equity (stock option plans, share-ownership plans, share based profit sharing, or profit sharing if you are in possession of these shares) and bond (bond-based profit sharing, i.e. those who hold these bonds have a credit right)
- main objectives → is essential to establish what is the purpose to be pursued through the reward system. A goal could be to retain or recruit the best talents within the company, rather than evaluating and rewarding excellent performance in the short term, or to improve and increase the sense of belonging to the company in the long term;
- recipients → the variable incentive system can refer to a single individual, for example the CEO of the company who typically has a highly personalized remuneration package, or to a group of individuals, such as management segments or even all staff;

The most commonly used classification, in any case, is that relating to the time horizon. A distinction is therefore made between:

- "Short term incentives" or short-term incentives;
- "Long term incentives" or long-term incentives.

The **short-term variable incentives,** also known as "annual bonus", have the main objective of rewarding the individual manager performance, by virtue of the possible achievement of certain performance at the end of the year. Through the bonuses, we tried to solve the agency problems between managers and shareholders, with the aim of the management behaving in such a way as to act in the interest of the shareholders, however the most evident result was the increase in earnings. personnel of managers to the detriment of the company's value creation. Furthermore, there are further critical issues related to this type of mechanism:

1. the recipients of the bonuses are usually only the members of the top management, and not those who in any case occupy key positions at an operational and strategic level;
2. they have a strong impact on the income statement especially when revenues are low;
3. it is necessary to provide for a continuous process of review and evaluation of the annual bonuses, as market conditions are highly variable and with them also the objectives and strategic plans of the companies. (Seacombe, 2012).

In any case, within certain limits, the annual bonuses can have a positive impact on agency problems and direct management towards efficient behavior, moreover in certain contexts they are linked to revenues and modified with a certain flexibility based on the turnover obtained. Therefore, by means of short-term incentives, a link can still be established between “productivity, costs, market revenues and corporate economic-financial performance” (Cutillo and Fontana, 2012).

At this point, the next step is to define the indicators useful to clearly and explicitly define the incentive system. It is therefore necessary to establish the main performance measures that make it possible to link the remuneration distributed to the objectives pursued, which in turn reflect the strategic plans of the company. To reward management with short-term incentives, the most used systems are the “Management by Objectives” and the “Balanced Scorecard”. The incentive system for objectives is based on the presence of a well-determined contractual scheme, in which the following are established: (1) the objectives to be achieved, (2) the amount of the bonus, (3) the threshold level below which there is no payment of any premium (and the maximum achievable level). This system was proposed in 1954 by Drucker: according to the author, the manager is exposed ex ante the objectives which must be "SMART" (specific, measurable, achievable, realistic, time related), in fact clear, stimulating but achievable and consistent with the role held, they can incentivize the subject to adopt an efficient behavior in line with expectations. Furthermore, being easily measurable, it is possible ex post to effectively control the results.

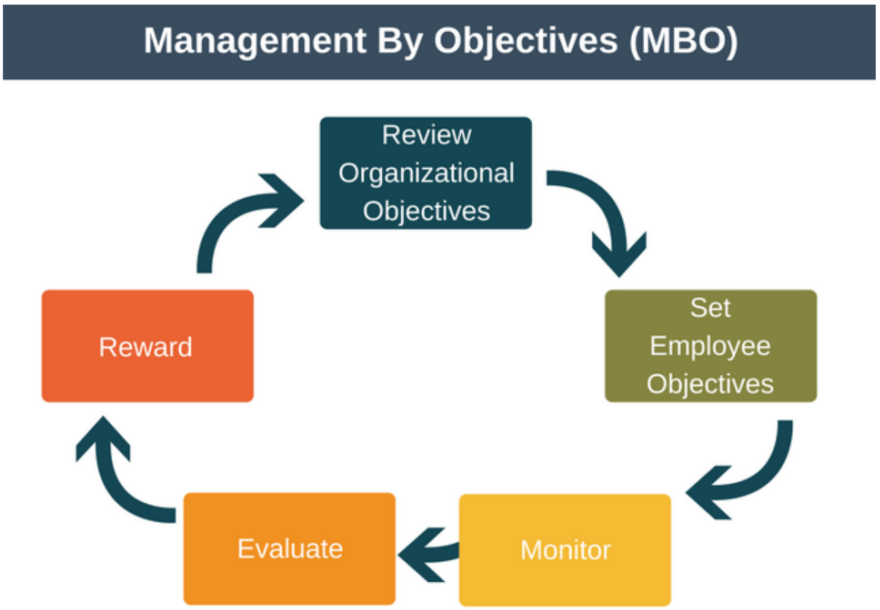

Figure 4 *Management by objectives*

Source: https://expertprogrammanagement.com/2017/11/management-by-objectives/

Each incentive system by objectives is based on the definition of an incentive curve, which describes the relationship between the achievement of the objectives (level of performance obtained) and the incentive; a point is often established below which no bonus is paid (floor point) and a cap point, which corresponds to the point at which the maximum bonus is paid.

However, the goal-based incentive system carries with it the risk that managers pursue individual and sectoral objectives, rather than those linked to the company's strategic plans. For this reason, a new incentive method was developed by Kaplan and Norton, based on the so-called “Balanced Scorecard”. This method intends to link different perspectives in a single system, with the aim of measuring performance not only from an economic-financial point of view. Mainly, the Balanced Scorecard transforms the mission and strategy of the company and, at the same time, of the various units, into tangible and measurable objectives. It also considers external measures, relating to shareholders and customers, and internal measures aimed at innovation and growth.

The different perspectives represented by the Balances Scorecard are the following:

- Economic-financial perspective → indicators and objectives relating to the invested capital (EVA, ROI, ROE…);
- Customer perspective → customer acquisition, retention and satisfaction;
- Operational → efficiency, effectiveness and flexibility of internal processes and "operations" aimed at satisfying customers;

- Development and learning perspective → development of internal skills and growth of the organization through innovation.

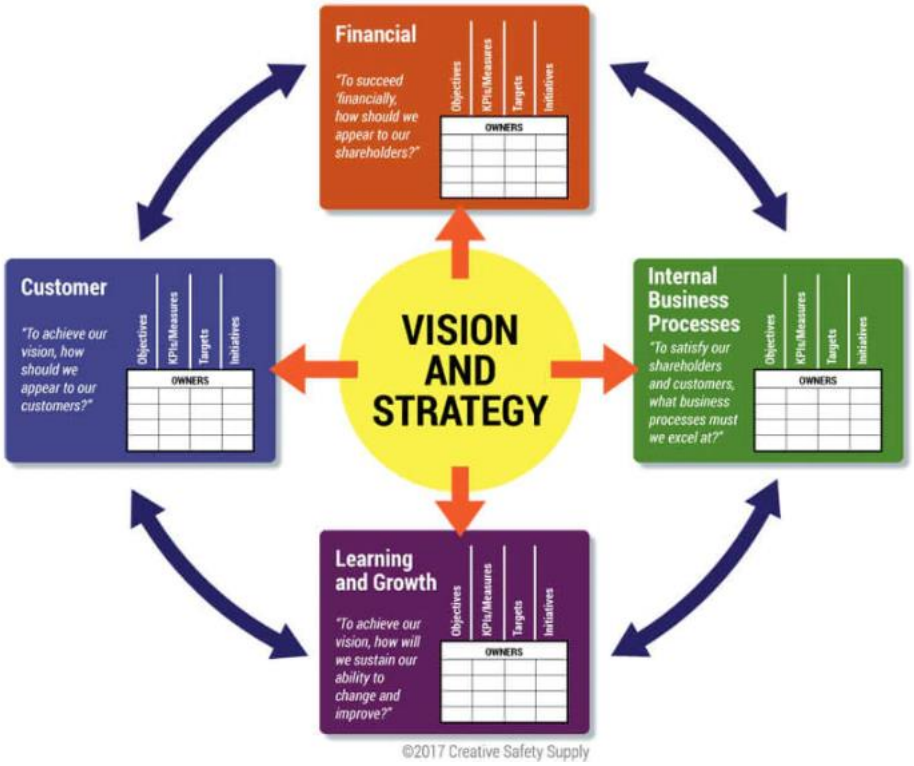

Figure 5 *Balanced Scorecard*

Source: https://www.creativesafetysupply.com/articles/balanced-scorecard/

The Balanced Scorecard, compared to the "Management by Objectives", has a complete vision of the company, managing to evaluate the performance of the company from an economic and financial point of view but also through other perspectives, fundamental for the growth and sustainability of the company. enterprise in the long run.

At this point, the aims and nature of the various **long-term variable incentive** schemes are mentioned. Among the agency costs that shareholders have to bear, there are precisely those relating to long-term management incentives. In addition to the main purpose of solving or at least reducing agency problems, this type of incentive scheme aims to attract the best talents in circulation, to motivate top managers to achieve high performance and, at the same time, to make the cost of the work. In recent years, the use of this scheme has increased considerably, especially in large national and international companies. The same legislation reaffirmed the relevance and effectiveness of long-term incentives, capable of allowing the sharing of corporate risks between shareholders and managers and also directing the efforts of managers towards sustainable objectives over time.

The most common classification to differentiate the different long-term incentive mechanisms is based on the nature of the instrument used. Therefore there are:

- monetary schemes;
- optional schemes;
- share schemes;
- hybrid schemes.

Monetary or “cash” schemes provide for the disbursement of a cash bonus upon expiry of a certain period of time, typically three years, with the aim of retaining, motivating and attracting the best resources within the company. Often, in defining this type of plan, several variables must be taken into consideration:

1. the level of professionalism of the manager,
2. competitive pressure from competitors,
3. economic sustainability of the plan.

As previously mentioned, the long-term incentive schemes provide for an accrual time of the bonuses / bonuses of not less than three years, therefore the bonus is typically paid at the end of this period, also defined with the term “vesting period”; however, it is possible to pay the premium in tranches rather than in a single payment. The recipients of these awards are often top management and, in general, people who hold an operational and strategic role within the company. There are usually also clauses in the contract that prevent the beneficiary from leaving the company for a certain period after the payment of the monetary premium.

Finally, a performance target to be achieved is associated with the passage of the bonus accrual time (typically ROE, EBITDA, EVA, EPS are used) and the measure used to parameterize the bonus cash is typically the gross annual remuneration, through a predefined multiplier range (0.5-3 times the RAL).

Option schemes, or better known by the term "stock option plans", are the most used and also the most abused, as they have often been exploited, not so much for their incentive purpose, but more than anything else to achieve high individual earnings through dangerous behaviors and operations (such as accounting manipulations). The stock options allow, as already described above, to the recipients to purchase a certain quantity of shares at a predetermined price, defined as the “strike price”, over a specific period of time. The nature of stock options is highly incentive and recalls the logic of American call options: the holder of an option hopes that the share price will increase, so as to purchase it in the set period of time at the lower strike price and receive large gains from the price differential. For this reason, stock options usually have a strike price above par, called the premium price, in order to

incentivize managers to have a long-term vision. In fact, if there is this premium price, i.e. the strike price is higher than the market price of the share, then the top management is incentivized to concentrate their effort on achieving benefits in terms of price at maturity. Furthermore, as regards the price, indexing tools are often used (therefore we speak of indexed stock options) in order to avoid that the price of the underlying share undergoes significant changes in positive or negative, not in line with performance. Positive or negative results achieved by the company, and at the same time there is therefore an increase or reduction in the value of the associated incentive. This indexation usually relates to the performance of companies belonging to the same sector or strategic grouping and does not like to meet the opinion of top managers, who, in the case of strong market growth, are unable to collect large proceeds.

It is necessary to consider two other fundamental variables in defining the option plans: the vesting period and the amount of the rights of the holder of these instruments.

There are three different types of vesting periods:

- cliff vesting → all options can be exercised at the same time;
- pahsed vesting → the options can be exercised in stages over time;
- performance vesting → the option can be exercised not only within a certain established period of time, but is also subject to the achievement of certain performance levels.

Regarding the number of option rights, there are three alternatives:

- fixed value plans → each year options are distributed for a predetermined value;
- fixed number plans → options are distributed in a predetermined number in each period for the entire duration of the plan;
- megagrant plan → the number and exercise price of the options is established ex ante.

In Italy, in recent years, there has been a lesser trend in the use of option plans in favor of share plans: one of the main reasons is due to the change in tax legislation in 2008 ("Urgent provisions for economic development, simplification, competitiveness, stabilization of public finance and tax equalization "); if before the entry into force of this new legislation, the holder of options was obliged to a tax of 12.5% (as happens for a capital gain), without the capital gain being included in the tax return, now these ancillary income they are included in the tax return and therefore are subject to full taxation.

The criticisms of the use of stock options have been very harsh, especially after the financial scandals and bankruptcies of numerous multinationals. They have been brought to the indictment mainly because they are aimed at triggering dangerous speculations by managers,

through fictitious accounting manipulation and investments aimed at maximizing the price of shares in the short term.

Share plans respond more effectively to the need to retain and incentivize managers towards a long-term vision, however they are more complex and difficult mechanisms to implement at the management level, compared to previous incentive plans. It is important to consider three main aspects when defining a share plan:

- the sale price of the shares;
- the recipients of the share plan;
- the possible link with the performances achieved.

As regards the determination of the price, the company can decide whether to issue the shares free of charge or against payment; the recipients can be top management or all subjects present within the company, such as employees. As previously mentioned, the trend in the use of share plans appears to be increasing both due to the change in tax legislation regarding option plans and because share plans better respond to the need to align objectives between managers and shareholders, as in they include the risk of participation in the company capital by managers.

A middle way between the three types of long-term incentive plans, described above, is made up of **hybrid plans**, that is, characterized by elements common to different categories. There are so-called "phantom stocks" plans, which are a hybrid of equity and cash plans, and "stock appreciation rights" (or SAR's) plans, which are halfway between monetary and option plans. Phantom stocks are characterized by the fact that they simulate for the recipients the possession of shares through "ghost shares", with the aim of linking the bonus / premium to the trend in the real value of the shares and dividends accrued after a certain period of time. The SAR's, on the other hand, simulate an option plan, assigning the premium based on the trend in the real value of the share without, however, including the accrued dividends.

The last consideration to be made concerns the evaluation of the performance of managers, that is, it is necessary to understand on the basis of which indicators or measures the performances achieved by the managers are evaluated. Typically, reference is made to indicators and parameters that describe the main targets that the companies take into consideration, namely:

- dimensional growth;
- solidity of assets;
- value of the company;
- cheapness;

- effectiveness of services;
- reduction of anomalies.

For dimensional growth, typically, market shares are used, the number of new customers reached (or the number of products or channels). Capital solidity is one of the characteristics held with greater attention by shareholders and bondholders, in fact the more solid the companies are, the more they are able to manage the business through their own means.

The measures that guarantee an alignment of the interests of managers and shareholders are those relating to the value of the company. The "Management by Objectives" methods often resort to the use of the main income ratios, such as ROE, ROS and EBIT, which are however based on purely accounting values. Therefore, in recent years it has been preferred to use another type of measure, more in line with the objective of incentivizing the manager to create value for the company, namely:

$$EVA = NOPAT - (C * WACC)$$

where: EVA is the economic value added, NOPAT is the net operating profit after taxation, WACC is the average cost of capital and C is the amount of invested capital.

EVA differs from traditional income indices, which are more suitable for assessing the economy of a company, as it is a monetary value and is able to better represent the value created by management.

In conclusion, however, it must be remembered that there are no measures and indicators valid for all companies and for all sectors. Each sector has its own benchmark indicators, and moreover, each company can choose the parameters and indicators on which to base the manager's incentive systems at will.

3.1.3 Pay-Performance Relationship

The first studies concerning executive compensation and in particular the correlation between remuneration and performance emerge in relation to American companies (Suntheim, 2011), so much so that the phenomenon of the high remuneration of top managers has typically been considered a practice of American origin, subsequently exported abroad and, therefore, also in Europe.

However, it should be remembered that there have been previous academic studies on this subject, such as the works of Roberts (1956), Baumol (1959), Lewellen and Huntsman (1970). Subsequently, in the eighties, further contributions emerge in modern literature, contextually to the affirmation of the theory of the agency. One of the most important academic studies is

that of Murphy (1998): the author, after dwelling on the elements that characterize the compensation package of the executives of American companies belonging to different sectors, concludes that the level of executive compensation depends strongly from the sector to which it belongs; for example, having found the average of cross-sector wages, American companies belonging to the utilities sector pay their managers with below-average compensation while companies belonging to the financial world are the ones that set the highest compensation. Furthermore, Murphy highlights how the size of the company has a significant impact on the amount of the remuneration package, which is typically characterized by a high fraction of option plans. This is because stock options and stock plans are the first driver that makes stock option salaries sensitive.

Consistent with what Murphy argued, empirical studies argue that executive compensation depends on the size of the company but also on its relative riskiness. Furthermore, the authors add that the most monitored companies, for example by institutional investors or characterized by highly concentrated structures, tend to select performance indicators with low volatility to define the remuneration package and also find that the "pay-performance sensitivity", understood as the change in dollars of “CEO wealth” for a change in the value of the firm in dollars, it is higher in the United States than in Germany. Haid and Yurtoglu (2006), in a study conducted on a sample of German companies, show how the ownership structure is linked to executive compensation and has an impact on pay-performance sensitivity. First of all, the authors show that in cases where there is a bank in the shareholder structure of companies, the remuneration packages are more contained, vice versa when households control the company, executive compensation is high. Secondly, the relationship between compensation and performance is very weak in companies where there is no proportion between voting rights and cash flow shares (for example through pyramid structures or shares with multiple voting rights) and also the sensitivity of compensation to performance, according to the authors, is consistent with the fact that companies with more concentrated ownership structures have greater incentives to carry out monitoring and supervision. Duffhues and Kabir (2008) through an empirical analysis conducted on Dutch companies, come to affirm that there is no significant correlation between executive compensation and corporate performance, as management, if it has high power, is able to change the salary package to your liking. Therefore, the incentive tools for remuneration, according to the authors, amplify the agency problem instead of solving it. One of the first empirical analyzes in Italy on this issue is that of Brunello et al. (1996), which show how an increase in profit of 1 billion lire increased the remuneration of top management by only 504 thousand lire and 184 thousand lire for intermediate management.

Looking towards the Asian market, there are numerous investigations on this topic. Zhou et al. (2011) believe that the control of the State in companies and, in particular in banks, heavily undermines the possibility of tying executive compensation to company performance achieved. Following this line, Kato and Ling (2005), in an analysis on a sample of Chinese listed companies, find that there is a significant correlation of the elasticity and sensitivity of monetary compensation (salary and bonus) with respect to the value created for shareholders, the growth rate of turnover and the negative net profit. According to scholars, Chinese top managers are penalized for a loss for the year while they are not rewarded in the face of an increase in profits. Furthermore, they argue that the ownership structure of the companies has a significant impact on pay-performance, in particular the companies in which the state has a stake show a weak link between compensation and results achieved, thus not solving the problem of agency costs. Finally, Kato and Kubo (2003), analyzing a series of Japanese companies, discover significant evidence in favor of the link between monetary remuneration (cash and bouns) of CEOs and performance indicators, including ROA.

As can be seen from a global view of the literature on this topic, it is not possible to reach a univocal and shared conclusion on the link between executive compensation and corporate performance. However, a fact shared by most of the studies conducted is the influence of ownership and corporate governance structures on the level and effectiveness of managerial compensation.

3.2 Executive compensation and ownership structure

The debate on manager remuneration systems is a particularly topical issue, especially following the financial crisis of recent years which has further turned the spotlight on this issue. In fact, if it is true that companies through the remuneration tool are able to attract and retain deserving managers and up to their roles, it is equally true that often, in conjunction with the biggest recent financial scandals, compensation of the extremely high-top management, which did not appear to be absolutely consistent with the economic performance achieved. Just think of two emblematic cases in America ("The debate on manager remuneration systems", Barontini, 2004):

- Enron → Kenneth Lay (CEO) received $ 25.3 million in salary and $ 246.7 million in options between 1999 and 2001. In 2002, the company went bankrupt with $ 64 billion in liabilities;

- Global Crossing → Gary Winnick (CEO) received $ 420 million in stock options and shares and $ 2.8 million in salary between 1999 and 2001. In 2002 the company went bankrupt.

But how can the occurrence of such situations be explained? First of all, it must be said that the increase in the level of remuneration of top management can be linked to the ever-increasing criticality of the managerial factor, which in turn derives from the increase in the size of companies and from greater competition on the markets. Furthermore, as mentioned above, the use of option and equity instruments, rather than aligning the objectives of managers with those of shareholders, has favored expropriation by managers to the detriment of shareholders. In fact, according to Bebchuck and Fried (2003), remuneration policies in turn become the cause of agency problems, when the CEO is able to exercise excessive power, especially in cases of high separation between ownership and control, or when:

- The CEO has an influence in the choice of the members of the Board of Directors;
- The members of the Board of Directors do not have adequate incentives that justify their opposition to the CEO;
- The members of the Board of Directors do not have the right information to oppose the CEO.

In such situations, therefore, there is no adequate control by the Board in the interest of the owners of the company and Executive compensation is an instrument of expropriation.

In this paragraph we want to highlight how the compensation of executives can be influenced by the ownership structure, and in particular by the type of controlling shareholder, by the degree of ownership concentration, by the separation between voting rights and dividend rights, and in lastly, by the presence of agreements between the shareholders of the company.

Evidence of high levels of board and top-management remuneration associated with certain governance characteristics can be a signal, in the principal-agent relationship, of expropriation by managers or controlling shareholders from other shareholders; however, a high remuneration of the board can be associated with the need to attract or retain the best managers with excellent professional skills and therefore try to create a network with other companies through the expansion of the board, in accordance with the "social network theory" . In this sense, the "social network theory" aims to explain how businesses, especially family businesses, can improve their network through the inclusion of highly qualified managers; therefore, a high level of remuneration would be due to larger boards that better

reflect this need for network creation by companies and also, at the same time, reflect the achievement of better performances (Barontini and Bozzi, 2009).

At this point, let's look at the governance characteristics that can influence the compensation of the board and top management. The degree of ownership concentration has a significant impact on agency costs and therefore also on the remuneration guaranteed to management. As pointed out by Dyl (1988), in the "closely held corporations" the majority shareholders have a significant incentive to monitor the work of the management, while in the "widely held companies" no single shareholder has a sufficient incentive to carry out the activity of monitoring due to the free-riding phenomenon. Therefore, in accordance with the agency theory, a higher monitoring activity reduces the expropriation of the annuities by the manager and therefore leads to a lower level of management remuneration. Several empirical studies argue that proprietary concentration is negatively correlated with the level of executive compensation, including Dyl (1988), Haid and Yurtoglu (2006).

Another variable to take into consideration is the type of controlling shareholder which can be divided into: family, state and “widely held corporation”. State ownership usually results in significant inefficiencies, due to the fact that control rights are de facto owned by bureaucrats who have neither dividend rights nor incentives to manage the organization efficiently (Shleifer and Vishny, 1997). From this perspective, the absence of control by the majority shareholder (the State) could favor the expropriation of the annuities by the management and therefore lead to high levels of executive compensation. On the other hand, it must be remembered that in recent years there has emerged a growing pressure from public opinion towards the political system which has led to limiting the excessive compensation of management in public companies. State-owned companies, therefore, can be forced to reduce management salaries, especially in companies considered strategic in the national interest where more efficient and effective monitoring of management's work is expected.

The theoretical analysis of the impact of family ownership on agency costs refers to the traditional principal-agent approach (Jensen and Meckling, 1976) and leads to the preliminary conclusion that, compared to firms characterized by dispersed shareholding, family firms are less exposed to agency costs because they have a low degree of separation between ownership and control. In addition, in family businesses characterized by the presence of the partner-founder or his successors, the commitment of the family leads to a more intense monitoring of the work of managers, thus minimizing the problem of free-riding typical of dispersed ownership structures (Andersen and Reeb, 2003a, b). The agency problem with family ownership is not the divergence of interests between shareholders and managers, as suggested by Jensen and Meckling (1976), but rather the incentives of the owner family to extract private benefits of control at the expense of minority shareholders. As DeAngelo and

DeAngelo (2000) point out, family shareholders extract private benefits through special dividends, excessive pay schemes, and stakeholder relationships. In family businesses, therefore, there may be the problem of expropriating annuities, which is expressed in the form of excessive compensation to top management. Schulze et al. (2001) underline the “altruism” that characterizes relationships between family members, which is expressed in the distribution of guaranteed benefits to family members, such as job security, extra wages and privileges. As a corollary of altruism, Schulze et al. (2002) explain that, despite the family's need to monitor and regulate management decisions to prevent inefficiencies relating to family relationships, the application of formal governance mechanisms, such as the presence of independent boards, is less likely. as a consequence of the prevalence of the family sphere over the business sphere of the company.

Furthermore, recent studies have highlighted that the founders of the business family play an important role in determining the appropriate choices in relation to family responsibility in the company and the achievement of business objectives (Gersick et al. 1997, Athanassiou et al., 2002); the direct involvement of the founder or descendants on the board accentuates the problem of expropriation as they are better able to direct management's choices towards their own interests. Therefore, high remuneration levels are expected when the founding partner or his descendants belong to the board. The empirical evidence on the relationship between family ownership and executive compensation is not unique. In German firms, Haid and Yurtoglu (2006) find a positive relationship between family ownership and managerial compensation. Cohen and Lauterbach (2008), in a sample of Israeli firms, find that CEOs who belong to the family or group that controls the firm receive significantly more compensation than a CEO outside the group or family. Conversely, Cavalluzzo et al. (2000) find a negative relationship between family ownership and the level of executive compensation. In any case, the literature is quite convinced that in family businesses there are higher levels of executive compensation and the presence of the founder or descendants on the board is positively associated with executive compensation.

Another governance feature to take into consideration is related to the possible tools capable of increasing the separation between ownership and control, such as the use of the “dual-class shares” mechanism or pyramid structures. The limited amount of cash flow rights in relation to "highly-leveraged" control structures can accentuate the problem between majority and minority shareholders: if, in fact, only a small fraction of the company's costs are borne by the shareholders of majority, these could indulge in inefficient top management remuneration agreements (for example, if a member of the controlling shareholders is the CEO). From this perspective, the inefficient remunerative contract can be considered an agency cost due to the separation between ownership and control. The literature has placed

a fair amount of attention on the effect that the gap between dividend rights and voting rights has on the value of the firm (La Porta et al., 2002; Barontini and Siciliano, 2003), while only a small focus is was asked about the effect on executive compensation. Haid and Yurtoglu (2006), in a sample of German firms, show that the gap between voting rights and dividend rights affects the relationship between firm size and the level of compensation (the increase in remuneration in larger firms is positively affected by the gap); however, they do not show evidence of the direct influence between the gap and the level of executive compensation. In a recent study, Masulis et al. (2009) found that the remuneration of the CEO is significantly higher in companies where the divergence between control rights and insider rights to dividends is higher.

Finally, like pyramid structures and deviation from the one share-one vote rule, pacts between majority shareholders can impact board and top management compensation, as they allow coalition participants to have control over the board despite owning a small fraction of the firm's dividend rights. The literature suggests that agreements between controlling shareholders can lead to a higher level of executive compensation in such a way as to extract private benefits related to the control.

In a study conducted on the Italian market, Barontini and Bozzi (2009) test the following hypotheses:

1. Ownership concentration is negatively correlated with executive compensation;
2. The type of property influences the amount of executive compensation. Lower pay levels are expected for state-controlled enterprises;
3. Higher compensation levels are expected for family businesses. Furthermore, the presence of the founder or his descendants is positively correlated with executive compensation;
4. Executive compensation is higher in companies with a larger discrepancy between voting rights and dividend rights;
5. Executive compensation is higher in companies with shareholder agreements.

To test these hypotheses, the two authors used a sample of companies listed on the Italian Stock Exchange from 1995 to 2002, for a total of 1722 observations corresponding on average to 215 companies per year.

The “Total Compensation” variable was used for executive compensation, corresponding to the sum of fixed remuneration, bonuses, non-monetary benefits and other earnings such as compensation from other subsidiaries or reimbursement of prepaid expenses. The variables relating to the ownership structure are: (1) “O” → percentage of the rights to the cash flow of the ultimate owner of the company, which precisely identifies the ownership concentration;

"C" → percentage of the ultimate owner's voting rights of the business; "W" → difference between "C" and "O", reflecting the use of tools such as "dual class" shares or pyramid structures. Furthermore, 20% was indicated as the cut-off point to verify the existence of a control chain, therefore a company that does not have a shareholder with more than 20% of shares is considered a widely held. The type of controlling owner is defined in relation to the nature of the ultimate shareholder of the company, ie the companies can be family ("Family"), controlled by the state ("State"), or widely held ("WH"); these variables are dummies. In relation to family businesses, the two authors also verified whether the founding partner or his descendants have a role in the board of the company through the use of dummy variables. Furthermore, the variable dummy (SA_{it}) was used to check the presence of agreements between shareholders, which has value one if there are agreements such as restrictions on the transfer of shares or restrictions on voting. As control variables have been inserted:

- the size of the company, identified by the logarithm variable of total assets (LSize), as the literature has shown that larger companies, in terms of net revenues, pay executives with higher remuneration;
- the performance of the company, given the positive correlation between this and the executive compensation that emerged from the literature, two variables were used: "RETURN" → stock market returns and "ROA" → ratio between operating profit and total assets;
- the company's growth opportunity, identified by the Tobin variable Q (LQ), equal to the logarithm of the ratio between (Book value of total assets - Book value of equity + Market value of equity) and (Value book of total assets);
- the business risk, identified by the variable (STD) equal to the standard deviation of the equity returns over a horizon of 256 days.

To test the impact of governance variables on the level of executive compensation, the two authors used the following regression model:

$$ln\,(TOTComp_{it}) = \alpha + \beta\, CV_{i,\,t-1} + \Omega\, YEAR + \gamma\, INDUSTRY + \lambda\, CGov_{it}$$

where $TOTComp_{it}$ is Total Compensation; *CV* is the vector of the control variables (LSize, LQ, STD, ROA_t and ROA_{t-1}); *YEAR* is the dummy variable set for the years 1995-2002; *INDUSTRY* is the set of dummy variables for the different sectors; *CGov* is the vector of the governance variables, previously described (O, W, SA, Family, State, Widely Held, Founder, Descendant, Out of board).

The results are shown in figure 6.

	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	3.9675	4.2109	3.5189	3.8942	3.6030	4.1288
	*19.97***	*17.58***	*17.29***	*15.81***	*16.88***	*15.82***
LSize	0.4306	0.4239	0.4536	0.4383	0.4571	0.4350
	*25.16***	*22.63***	*26.69***	*23.32***	*25.38***	*21.57***
ROA_t	0.2134	1.0497	−0.0347	0.8365	−0.2810	0.4999
	0.40	*1.79**	*−0.07*	*1.44*	*−0.53*	*0.82*
ROA_t_1	1.6659	1.5266	1.4147	1.4412	1.4068	1.4453
	*3.16****	*2.69****	*2.76****	*2.57****	*2.63****	*2.41***
LQ	0.2430	0.3134	0.3064	0.3328	0.3434	0.3997
	*2.86****	*3.33****	*3.70****	*3.57****	*4.03****	*4.15****
STD	−0.1980	−0.3264	−0.3414	−0.4254	−0.4797	−0.4883
	−0.78	*−1.28*	*−1.38*	*−1.68**	*−2.08***	*−2.20***
ST_OP	0.1674	0.1426	0.1590	0.1541	0.1457	0.1341
	*2.21***	*1.82**	*2.15***	*1.98***	*1.94**	*1.68**
O		−0.6437		−0.5726		−0.6971
		*−4.08****		*−3.65****		*−4.16****
W		−0.9535		−1.1235		−1.1705
		−3.31***		−3.89***		−3.75***
2nd Sh.		−0.5748		−0.5674		−0.6971
		−1.11		*−1.10*		*−1.30*
SA		0.2003	0.2528	0.2187	0.2786	0.2521
		*2.84****	*3.82****	*3.13****	*4.04****	*3.44****
Family			0.3328	0.2719		
			*5.21****	*4.11****		
Founder					0.3867	0.3474
					*4.70***	*3.94***
Descendent					0.3207	0.1910
					*4.24****	*2.41***
Out board					−0.7282	−0.3630
					*−3.37****	*−1.56*
State			−0.2714	−0.0922	−0.2636	−0.0480
			*−3.01****	*−0.94*	*−2.94****	*−0.49*
R^2 adj.	54.42%	61.64%	57.25%	62.70%	58.36%	63.84%

Significant at 1% (***), 5% (**), and 10% (*) levels
T statistics appear in italics, under coefficients

Figure 6 *Determinants of board compensation (table)*

Source: Barontini R., Bozzi S., 2009, "Board compensation and ownership structure: empirical evidence for Italian listed companies", Springer Science + Business Media, LLC

The results show that:

- a more concentrated ownership structure is associated with lower executive compensation, in line with empirical evidence in European and non-European countries (coefficient of variable O, relative to ownership concentration, negative and significant at 1% in all specifications);
- the level of executive compensation is influenced by the nature of ownership → state-owned businesses pay managers less than family businesses;
- the level of compensation is negatively affected by the gap between dividend rights and control rights (coefficient of W negative and significant at 1%); this evidence is in contrast with the literature, however further analyzes have investigated the issue and it has been concluded that this negative relationship is due to the fact that, especially family businesses pay very high remuneration the members of the board of the companies in charge of control, while the board of non-controlling companies (where the gap between dividend rights and voting rights is high) is paid much less;

- shareholders' agreements are associated with higher board remuneration (positive and significant SA coefficient at 1%);
- in family businesses, executive compensation is high, especially in the presence of the founder on the board (positive and significant *Founder* coefficient at 5%). This evidence supports the hypothesis of the expropriation of annuities by family members and confirms the centrality of the founder in the strategic choices of the company, in fact it highlights that the high executive compensation associated with the presence of the partner-founder is a signal that the interests of the business are secondary to those of the family, as suggested by the negative relationship between executive compensation and the company's future performance.

Another empirical evidence showing the relationship between ownership structure and executive compensation is that of Luo and Jackson (2012), relating to the Chinese market. The two authors note that ownership concentration tends to have a negative impact on the remuneration of top managers. A one-unit increase in the controlling shareholder's fraction of shares tends to reduce the CEO's remuneration by 0.82%. In addition, the remuneration of executives in Chinese companies is usually not determined by the controlling shareholder, on the contrary by the various majority shareholders present in the company. Furthermore, this study shows that both the type of controlling shareholder and the presence of a "compensation committee" have a significant influence on executive compensation. The involvement of the state in the ownership structure limits the level of the CEO's remuneration, while the presence of a committee that has the purpose of defining the CEO's remuneration package seems to facilitate a higher level of this package.

Finally, mention is made of the study conducted by Hamid Mehran (1995) which focuses on the relationship between the ownership structure and the type of remuneration of the CEO (rather than on the level of remuneration). First of all, the performance of companies is positively correlated with the percentage of equity owned by top managers and with the percentage of their compensation that is based on equity. Equity-based compensation is much more used in companies with more independent directors on the board, while in companies in which insiders or outside blockholders have a higher shareholding, equity-based compensation is used less, demonstrating the fact that the monitoring carried out in these types of companies replaces the incentive system of remuneration based on share or option plans.

A further empirical evidence relating to this issue is that of Almeida (2014) relating to a sample of French companies: companies characterized by a low involvement of shareholders in controlling the work of managers, such as companies with dispersed shareholders, are those

that pay CEOs with higher remuneration. In addition, this type of company makes greater use of bonuses and equity-based plans (equity and options) to align the interests of managers and shareholders. The remaining types of companies, such as closely held companies, use a remuneration scheme based more on their degree of involvement and investment time horizon, therefore they are characterized by lower manager remuneration and long-term incentives rather than bonuses and annual awards.

3.2.1 Remuneration of the CEO in family businesses: CEO inside or outside the family

Family businesses, as mentioned above, differ from other businesses mainly by the fact that ownership and control usually coincide in the same person, the founding partner. Ownership concentration in this type of business reduces agency conflict between managers and shareholders since family members have greater incentives to monitor. However, the family business can generate another type of agency problem, namely the extraction of the private benefits of control by family shareholders to the detriment of minority shareholders. For example, to preserve such private benefits, such firms could promote family members in key top management positions rather than recruiting more qualified but non-family managers. Villalonga and Amit (2006), in their study, analyze the value of businesses and find that family businesses perform better than the rest, thus suggesting that they suffer from lower agency costs. However, second generation family businesses (i.e. managed by descendants of the founding partner) have lower economic and financial performances; this evidence is certainly a sign of lower entrepreneurial skills on the part of the descendants but can also be associated with a greater propensity on the part of these to extract control benefits to the detriment of the profitability of the company and therefore of the minority shareholders. It has already been said previously that a more concentrated ownership structure is a mechanism for aligning the interests between shareholders and management, due to the fact that the monitoring activity is decidedly more relevant, and therefore can represent an alternative mechanism to pay-incentive systems. for-performance. Therefore, the literature suggests that executive compensation in family businesses shows lower levels of “pay-for-performance sensitivity”.

Raheja (2005) believes that theoretically the monitoring by the Board of Directors is more effective in the presence of family members on the board who have the incentive to provide information to external directors that allows them to more effectively control the decisions taken by the management of the 'business. Therefore, monitoring in family businesses is more effective when family members are active in the management of the business, and this therefore leads to the implication that "pay-for-performance sensitivity" will be higher when there are no family members covering roles in the company's top management.

Another consideration to be made is related to the diversification of risk in family businesses. The latter, compared to companies with dispersed shareholdings, do not diversify risk in the financial markets and therefore are exposed to higher idiosyncratic and total risk levels with consequent potential loss of the private benefits of control. Additionally, family members prefer lower risk levels than non-family owners. For these reasons, the following implication is reached: family businesses have remuneration systems based on less risky incentives than other businesses, especially when the private benefits of control are high and family members are involved in the top management of the company.

The existing literature on executive compensation in family businesses is quite limited. An interesting study highlighting the main determinants of CEO compensation in family businesses is that of Gomez-Mejia et al. (2003). The authors show how executive compensation policies depend on whether the CEO is an internal or external member of the family, on the presence of institutional investors[7], the amount of investments in R&D and finally the degree of riskiness of the business. The literature shows that incumbents with family ties with the owners of the business tend to have greater job security than external (professional) managers, furthermore family executives by nature cover two interdependent roles: an operational role, as directors of the company, and a non-operational role, as guarantors of the achievement of family obligations. For this reason, family CEOs are rewarded with safer roles. In addition, the performance expectations of internal CEOs are usually lower than those of external CEOs, who are often called upon in difficult situations, more likely to fail. Therefore, in the logic of the agency theory, it can be thought that in family businesses risk-averse agents are likely to have lower earnings in exchange for higher job security if they have some relationship with the principals (family owner). Conversely, professional CEOs require higher compensation related to the performance expectations placed on them, in exchange for lower job security. This trend is reinforced by the fact that internal CEOs are less likely to compete on the external market, while professional CEOs have the freedom to choose the best offer from the alternatives available on the managerial market. Therefore, the first hypothesis that the authors test is the following:

1. **The internal CEO receives a lower total compensation than the external (professional) CEO. Furthermore, the higher the ownership concentration in the hands of family members the greater the gap between the compensation of the family CEO (paid less) and that of the professional CEO (paid more).**

[7] Institutional investors are defined as economic operators who make investments systematically and in a cumulative manner. This category includes banks, insurance companies, credit institutions, investment funds, pension funds and local government bodies.

According to the authors, institutional investors play an active role in regulating agency problems in family businesses. The literature suggests that institutional investors pay particular attention to the agency costs associated with "managerial myopia": investors are interested in the value of the firm in the long run while managers usually prefer to have personal gains in the short term and gain a reputation. such as to have fast career advancements. In relation to this, several studies have shown the positive impact of institutional investors on the use of equity-based compensation to promote a long-term managerial perspective and align the interests between shareholders and management. However, in the case of family businesses, the long-term perspective of family CEOs is the natural consequence of "membership" in the family system, therefore from the point of view of institutional investors the advantages of "long-term pay" are significantly reduced for Internal CEO. Additionally, emphasizing long-term pay incentives for internal CEOs can inadvertently promote agency problems associated with managerial entrenchment. In fact, designing a remuneration package for the family CEO, based mainly on long-term incentives, significantly increases the position of power of the incumbent (which has a high share of equity) and this increases the probability of expropriation of minority shareholders. of the company. For these reasons, the benefits deriving from the use of long-term remuneration incentives are offset by the excessive control of the incumbent and the problems of moral hazard. In summary, if the CEO is a manager external to the company, the long-term incentives can align the interests of the same with that of the shareholders, thus solving the problems of “managerial myopia” and asymmetric information; in the case of internal CEOs, increasing the control of the incumbent through equity-based compensation can have a negative impact on the well-being of shareholders. Therefore, the second hypothesis tested by the authors is the following:

2. **The higher the percentage of the equity stake in the hands of institutional investors, the lower the long-term gains received by internal CEOs. Furthermore, the higher the percentage of the equity stake in the hands of institutional investors, the lower the proportion of long-term earnings relative to the total compensation package for family CEOs.**

   Another factor that has an impact on executive compensation in family businesses is the amount of R&D activities. The literature argues that firms with high R&D investments pay their executives more and tend to emphasize the variable component of compensation, particularly long-term earnings. In this sense, such firms pay CEOs with higher fees in relation to the high risks associated with R&D activities. Therefore, in these companies the role of long-term incentives is expressed in “self-monitoring”, i.e. in mitigating the information asymmetries between professional CEOs and

shareholders who are particularly present in companies with large investments in R&D. In family businesses, the positive influence of R&D activities on the total remuneration of the CEO is lower in the case of internal CEO, in fact, as the intensity of R&D activities increases, the advantages of having an internal CEO (e.g. greater loyalty and commitment) bring with them two main problems: the company is characterized by a limited set of managerial skills and the internal CEO is less qualified than external managers. Therefore, the third hypothesis is the following:

3. **The positive effect of the intensity of R&D activities on the level of executive compensation is lower in the case of internal CEO.**

   Ultimately, given the assumption of agents' risk aversion, agency theory suggests that as the risk of uncontrolled business increases, the CEO's total compensation should increase. In the case of family businesses, the risk-reward relationship depends on the link between the CEO and the owner family. The internal CEO, compared to an outsider CEO who works for a fee, concentrates all his forces and risks in the business of the company. These risks are not only financial, but also socio-emotional as the ultimate goal of the owner family is to pass on the company itself to subsequent generations. Conversely, the external CEO is neither financially nor emotionally tied to the company, as his ultimate goal is only to earn as much as possible and receive a pay-premium over the internal CEO when he leads the company (as claimed in hypothesis 1). The fourth and final hypothesis, tested by the authors, is therefore the following:

4. **The total compensation of internal CEOs grows faster than that of professional CEOs as business risk increases.**

   The authors test these hypotheses on a sample of 253 listed family businesses over a period of 4 years (1995-1998); following the criteria of the literature regarding the family business, family members are defined as companies that meet two conditions jointly: two or more directors of the Board belong to the family and family members have control of at least 5% of the voting rights. In addition, 148 of these companies have an internal CEO, while the rest are managed by a professional CEO.

The variables used for the regression model are:

- CEO Compensation → measures of both compensation level (total compensation, salary, bonus and long-term earnings [LTI]), and compensation mix (salary / total compensation, bonus / total compensation, LTI / total compensation) were included;
- CEO Family Status → dummy variable which has value 1 if the CEO belongs to the family, otherwise value 0 if the CEO is external;

- Ownership structure → the percentage of stock owned by the CEO, the percentage of stock owned by the family (excluding the CEO) and the percentage of stock owned by institutional investors were measured;
- Variable → firm risk that measures the variability in company share returns;
- R&D Intensity → measure of the ratio between R&D expenses and sales;
- Control variables → company size (average value of sales), firm performance (ROA and average value of share returns), characteristics of the CEO (age, CEO Chair if the CEO is also Chairman of the Board, CEO Founder if the CEO is also the founder, CEO Compensation Committee (if the CEO belongs to the Compensation Committee), percentage of family members on the Board, characteristics of the company (industry, age).

The hypotheses were tested through a regression analysis, with the variable CEO compensation as the dependent variable; first the authors considered the effects of all the variables on the dependent variable, then the interaction terms were inserted, i.e. the interaction between the dummy variable CEO family status and: % family ownership (hypothesis 1), % institutional ownership (hypothesis 2), R&D intensity (hypothesis 3), risk firm (hypothesis 4). A positive sign of the relationship term means that the effect of this variable on the CEO's compensation is greater in the case of a family CEO (and vice versa if the sign is negative).

The table below summarizes the results of the regression.

	Main Effects	Total Pay	Salary		Bonus		LTI	
			Amount	% Mix	Amount	% Mix	Amount	% Mix
1	Sales	.37**	.44**	-.59***	.48***	.50**	.19	.33^{+}
2	Return on Assets	-.12	-.05	.10	-.12	.01	-.11	-.18
3	Excess Returns	.06	.08	.03	.11	.06	.03	.02
4	Industry	-.10	-.20^{+}	-.08	.04	.11	-.09	.05
5	Firm Age	-.24*	-.19*	.04	-.21^{+}	-.04	-.19	-.03
6	International Diversification	-.06	-.04	-.08	.18	.15	-.14	-.04
7	CEO Board Chair	-.07	.08	.06	-.11	-.12	-.08	.01
8	CEO Founder	-.01	-.18	-.09	-.20	.02	.09	.06
9	CEO Tenure	.15	.35**	.22	.28*	-.12	.02	-.16
10	Family in Board	.05	-.02	-.00	-.01	-.11	.05	.07
11	% Family Ownership	.01	.04	.06	-.01	-.22	-.01	.05
12	Institutional Ownership	-.05	.14	.14	.06	.04	-.10	-.15
13	% CEO Ownership	.01	.01	.01	.02	.09	.01	-.05
14	CEO Com. Committee	-.04	.06	.10	.07	.08	-.09	-.24
15	Family Comp. Committee	-.06	-.08	-.11	.03	.16	-.07	.03
16	Family CEO	-.25^{+}	-.15	.19	-.16	-.03	-.22^{+}	-.13
17	Systematic Risk	.37**	.20*	-.08	.12	-.16	.38*	.20
18	Unsystematic Risk	-.03	-.00	-.02	-.03	-.09	-.03	.08
19	Research & Development	.22^{+}	.13	-.06	.03	-.00	.23^{+}	.07
	Adj. R^2	.33***	.43***	.28***	.31***	.03	.08	.02
	Interaction with CEO Family							
	Systematic Risk (17*16)	.69***	.25	-.27	-.10	-.38	.81***	.52*
	Unsystematic Risk (18*16)	.32	.10	-.23	-.33	-.45	.41	.20
	R&D (14*16)	-.93***	-.18	.47*	-.15	.38	-.46***	-.90***
	% Inst. Ownership (12*16)	-.19	.23	.14	.15	.45^{+}	-.36*	-.58**
	% Family Ownership (11*16)	-.21*	-.32**	.27^{+}	-.26^{+}	-.36*	.10	-.05
	Δ Adj. R^2	.39***	.05*	.05*	.00	.08*	.53***	.17**

$^{+}$P ≤ .10
*P ≤ .05
**P ≤ .01
***P ≤ .001

Figure 7 *Predictors of CEO level and pay mix (table)*

Source: Gomez-Mejia, LR, M. Larraza-Kintana, and M. Makri, 2003,

"The determinants of executive compensation in family-controlled public corporations,

Academy of Management Journal" 46, 226-237

The results of the authors' study, in relation to the hypotheses previously described, show that:

1. Family CEOs receive a lower total compensation than professional CEOs (β = - 0.25, P ≤ 0.10), moreover, as family ownership increases, the compensation of the internal CEO decreases (β = - 0.21, P ≤ 0.05);
2. As the equity stake held by institutional investors increases, both the relative amount (β = - 0.36, P ≤ 0.05) and the mix of long-term earnings versus total compensation (β = - 0.58, P ≤ 0.01) decreases for the family CEO;
3. The effect of R&D investments on CEO compensation is lower for family CEOs (β = - 0.93, P ≤ 0.001) and such family CEOs are paid in cash (β = 0.47, P ≤ 0.05) rather than through compensation to long terms (β = - 0.90, P ≤ 0.001);

4. Business risk has a larger positive effect on CEO compensation than in the case of a family CEO ($\beta = 0.69$, $P \leq 0.001$)

In conclusion, the authors find that the total compensation is lower for “internal” CEOs (ie belonging to the family), compared to “external” CEOs, but their compensation package is much more isolated from risk. Therefore, internal CEOs receive more insurance on their workplace in exchange for less total compensation. The authors also argue that institutional investors play an important role in defining remuneration policies in family businesses. The evidence is consistent with the theoretical expectations that agency problems, from an external investor point of view, differ in relation to the family's ties to top management. The “managerial myopia”, in the case of external CEOs, can be reduced through remuneration based on long-term incentives; on the other hand, the managerial involvement ("managerial entrenchment"), in the case of internal CEOs, can be kept under control by not providing them with remuneration packages based more on equity, therefore stock or option plans, in such a way as not to increase their position of power.

Consistent with this evidence, Ryan and Wiggins (2001) find that internal CEOs receive a compensation package with a lower percentage of shares than external CEOs. Croci, Gonec and Ozkan (2010), in a study conducted on companies in continental Europe, document a lower total remuneration of the CEO (and lower compensation based on stock and option plans) in family businesses. Finally, Li, Ryan and Wang (2011), through an empirical analysis of executive compensation in family businesses, show that, when a family member is an executive in management (e.g. the CEO), there are fewer incentives related to equity-based plans, weak incentives for promotions and risk-taking. These weak incentives for turnover and risk-taking confirm the significant presence of the private benefits of control in family businesses. When there are no family members in the most important positions of corporate management, the authors find no differences between family and non-family businesses regarding remuneration incentives.

In conclusion, family businesses, especially in the case of CEO belonging to the family unit, represent a trade-off between lower agency costs related to the manager-shareholder relationship and higher agency costs associated with the private benefits of family control. In this sense, therefore, it is also interesting to reflect on the influence of the legal system on remuneration policies. In companies with widespread shareholding, as already mentioned above, it is appropriate to reduce the power of managers through:

- substantial independence of the members of the Board of Directors from the CEO;
- greater control exercised by institutional investors;
- complete disclosure on remuneration policies.

The same goes for companies with concentrated ownership structures, such as family firms, moreover, it appears that greater transparency is needed to minimize the incentive to extract private benefits, such as excessive remuneration of top management and the board. In this sense, the “say on pay” mechanism emerged, through which the shareholders' meeting is called to deliberate on remuneration policies. The shareholders' resolution is not binding but merely consultative, however the mechanism of this vote can lead to greater creation of value in companies.

Recently, in fact, Consob[8] carried out an analysis on the effectiveness of this consultative vote in our national context characterized by a highly concentrated ownership structure and therefore verified whether this vote could be useful for expressing disagreement on remuneration policies or whether the prevalence of majority shareholders in such companies invalidate their reporting behavior. The study showed that, even in companies with concentrated ownership such as family businesses, the advisory vote of minority shareholders does not lose its effectiveness; even if the vote concerns only the remuneration policy and not the total level of remuneration assigned, it emerges that the dissent does not have a correlation with the economic results, but aims to identify cases of excessive remuneration or lack of transparency in showing the remuneration systems variable.

[8] “Say-on-pay in a context of concentrated ownership. Evidence from Italy "and published on the Consob website in February 2014.

4 RELATIONSHIP BETWEEN CEO REMUNERATION AND DIVIDEND PAYOUT RATIO IN FAMILY AND NON-FAMILY ENTERPRISES

4.1 Dividend smoothing in family and non-family businesses

The literature has long discussed the various agency and information asymmetry problems that characterize family businesses compared to non-family ones. The dividend policy, as already mentioned in chapter 2, can be a solution to these problems, however it differs greatly depending on the ownership structure of the companies.

Lintner (1956) examines the speed at which firms adjust their dividends towards the target payout ratio, established a priori by firms; the author observes how this adjustment process is gradual and defines this process with the term “dividend smoothing”. Dividend smoothing is theoretically considered as a solution to agency and information asymmetry problems: in companies with dispersed shareholders the main conflict occurs between shareholders and management, due to the separation between ownership and control, while in family businesses, in which the conflict between shareholders and managers is mitigated by constant monitoring and the influence of the family on the work of management, the conflict occurs between minority and majority shareholders (expropriation of minority shareholders). In general, empirical evidence suggests that the aggregate agency cost in family businesses is lower than that of non-family businesses.

Family businesses differ from non-family businesses in their ownership structure: control is normally in the hands of the owner family and the latter has a strong interest not only in monitoring the work of managers but also in influencing their decisions; for this reason, many family businesses are run by family members who often occupy relevant and strategic roles in the business. Given the high monitoring and the close link with the management, the owner family is able to effectively align the interests between shareholders and management, to have greater access to information and a better understanding of the nature of the business; this leads to less information asymmetry between shareholders and management. However, this excessive power in the hands of the family can increase conflicts between majority and minority shareholders.

Hu et al. (2007) examine the differences in payout policy between family and non-family businesses and find that the former on average have lower dividend payout ratios than the latter, supporting the fewer agency problems that characterize family businesses. Firms with higher agency problems are less able to maintain the optimal target payout ratio and are not

likely to change their dividends. This argument can explain the behavior of firms regarding dividend smoothing: firms with greater agency problems are more likely to keep their dividends constant.

The impact of agency conflicts on dividend smoothing has been empirically tested by the literature. Dewenter and Warther (1998) find that Japanese firms, especially those led by "keiretsu", are more likely to cut or omit dividends than American firms; these firms, in fact, suffer from fewer agency problems and information asymmetry as shareholders have close ties with management and have long-term investment horizons. Following this line, Chemmanur et al. (2007) argue that Hong Kong firms, characterized by high ownership concentration and therefore fewer agency conflicts, have lower levels of dividend smoothing.

In addition to agency conflicts, information asymmetry can also explain the relationship between ownership structure and dividend smoothing. As ownership concentration increases, the degree of information asymmetry between management and shareholders decreases, and therefore managers will be less likely to use dividends to provide information to the outside world and will engage in less dividend smoothing behaviors.

Lau and Wu (2010), in a study conducted on a sample of American companies, try to explain the relationship between ownership structure and dividend smoothing, testing the following hypothesis:

H1: Family businesses engage in less dividend smoothing behaviors than non-family businesses

To test the hypothesis, the authors use Lintner's model:

$$D_{i,t} = D_{i,t-1} + c\,(bE_{i,t} - D_{i,t-1})$$

where $D_{i,t}$ are the dividends at time t of firm i, $E_{i,t}$ are the profits at time t of firm i, $D_{i,t-1}$ are the dividends paid by firm i at time t-1, *b* is the target payout ratio and *c* is the adjustment rate (SOA) or smoothing parameter. The higher c, the faster the adjustment towards the target payout ratio. Dividend smoothing implies that c is less than 1.

The previous equation can be rewritten as follows:

$$D_{i,t} = \alpha + \beta_1 D_{i,t-1} + \beta_2 E_{i,t} + \varepsilon_{i,t}$$

The smoothing parameter "c" is captured by the coefficient β_1. $\beta_1 = (1-c)$, therefore a high value of β_1 indicates a low rate of adjustment and therefore a high degree of dividend smoothing.

The authors, to test their hypothesis, insert the variable (Fam) that captures the classification between family and non-family businesses. The regression model is therefore the following:

$$D_{i,t} = \alpha_1 + \beta_1 D_{i,t-1} + \beta_2 E_{i,t} + \alpha_2 Fam_{i,t} + \gamma_1 Fam_{i,t} * D_{i,t-1} + \gamma_2 Fam_{i,t} * E_{i,t} + \varepsilon_{i,t}$$

When the variable Fam is equal to 1, the firm is classified as family, vice versa when Fam = 0 the firm is classified as non-family. According to the literature, a company is considered family-owned if the founder or his descendants continue to hold relevant positions in the top management and on the board and hold a shareholding that allows them to be the majority shareholder.

The variables chosen by the authors are the following:

- Dividends → the "Dividend per share" (DPSA) was used as the dependent variable, ie the ratio between total dividends and outstanding shares (adjusted for the split of the shares);
- Profits → the variable "Earning per share" (EPSA) was used, ie the ratio between profits and shares in circulation (adjusted for the split of shares);
- Control variables → Company size (logarithm of sales), company growth opportunities (market-to-book ratio), company leverage (ratio between total debt and book value of assets);
- Dummy variables for the industrial sector (SIC) and the year.

The results of the regression analysis are described in the table below:

	No.of Obs.	Constant	DPSP	EPSA	DPSP*Fam	Adj. R-square
Total Sample	4255	0.10546 (6.77)***	0.90754 (89.85)***	0.004522 (3.00)***		65.5
	3076	0.19208 (8.08)***	0.84527 (61.53)***	0.015667 (5.76)***		55.8
SIC & Year indicators	4255	0.8124 (5.56)***	0.88978 (84.32)***	0.004309 (2.82)***		66.0
	3076	0.8843 (5.19)***	0.8218 (56.95)***	0.015088 (5.29)***		56.4
DPSP*Fam interaction	4255	0.07559 (3.98)***	0.95996 (76.52)***	0.004567 (2.99)***	-0.18289 (-8.36)***	66.1
	3076	0.12615 (4.33)***	0.91726 (52.83)***	0.015982 (5.85)***	-0.22946 (-7.94)***	56.9
DPSP*Fam interaction with SIC & Year indicators	4255	0.7225 (4.98)***	0.94649 (72.32)***	0.003847 (2.48)**	-0.18149 (-8.24)***	66.5
	3076	0.76 (4.49)***	0.89871 (49.52)***	0.014405 (5.04)***	-0.22473 (-7.74)***	57.4
DPSP*Fam interaction with SIC & Year indicators, and control variables	4254	0.1678 (0.96)	0.9131 (65.06)***	0.0059 (3.63)***	-0.17848 (-8.12)***	66.9
	3076	0.1639 (0.74)	0.86957 (45.26)***	0.017947 (6.11)***	-0.22189 (-7.60)***	57.9

Figure 8 *Lintner Model Regression Estimates: Dividend Smoothing (table)*

Source: Lau, J., & Wu, H. (2010). Founding Family Ownership and Dividend Smoothing. Working Paper

The dependent variable is DPSA, i.e. the dividend per share at time t adjusted for the split of shares. DPSP is the dividend per share at time t-1 while EPSA is learning per share at time t. DPSP * Fam is the interaction variable between DPSP and FAM (FAM = 1 for family businesses, FAM = 0 for non-family businesses). For each regression, the first refers to observations that also include firms with dividends of 0, the second to observations that include only positive dividends. The *t*- statistic is equal to ***, **, * which represent respectively 1%, 5%, and 10% significance level.

In the first regression model, which includes only the DPSP and EPSA variables, both the unit dividends at time t-1 and the earnings per share are highly significant. The t-statistic of unit dividends is much higher than that of earning per share, reflecting the fact that unit dividends better predict the behavior of current unit dividends. The smoothing parameter in all observations is (1 - β_1), or (1 - 0.90754) equal to 9.25%, thus indicating that on average companies take about 11 years to adjust their dividend to the target payout ratio. The regression that includes only observations with positive dividends shows a slightly faster rate of adjustment, equal to 15.5%, however the results indicate that on average the firms in the sample achieve high levels of dividend smoothing. In the second regression model, variables related to industry and year are included: the results are similar to the first model.

In addition to the variables already present in the first two models, the third regression model includes the interaction variable DPSP * FAM which allows us to distinguish the behavior of family businesses from non-family businesses in relation to dividend smoothing. The results confirm the authors' hypothesis, in fact the interaction term has a negative and significant coefficient, implying that family businesses have a greater speed of adjustment (parameter c). The speed of adjustment of non-family businesses is equal to 5.35% (1-0.94649), while that of family businesses is equal to 23.5% (1- (0.94649-018149)); in other words, non-family businesses take 19 years to adjust their dividends to the target payout ratio while family businesses only spend 4 years on average. The regression with observations with only positive dividends shows a discrepancy, with non-family businesses taking about 10 years to reach the target pay-out ratio while family businesses only 3 years.

The fourth and fifth models include, compared to the third model, the variables relating to the year and the industrial sector and the control variables, however the interaction term remains highly significant and there are no changes in the coefficients.

In summary, the results confirm the difference in behavior between family and non-family businesses, thus supporting that the degree of dividend smoothing achieved by family businesses, characterized by fewer agency problems, is much lower than that of non-family businesses.

To understand in detail this different behavior between family and non-family businesses, the authors verified whether a lower level of dividend smoothing for family businesses depends on the willingness of the same to increase dividends when profits increase or cut them in relation to lower profits. In general, the literature argues that managers are more reluctant to cut dividends than to increase them, due to the penalization of the market on the value of the shares following any dividend cut; this phenomenon is defined with the term "smoothing asymmetry". To verify this hypothesis, the authors divided the sample of companies into two sub-samples: one including companies with significant increases in profits compared to the previous year (threshold of 25% increase in profits compared to the previous year) and one including companies with significant decreases in profits compared to the previous year (threshold of 25% decrease in profits compared to the previous year). For each sub-sample, a logistic regression was used that relates the significant changes in dividends (dependent variable), defined as such with a threshold of 25% or 10% change in dividends), with respect to independent variables, such as variable that distinguishes family businesses from non-family ones and control variables.

The results are shown in the table below.

Dependent variable	Significant Earnings Increase		Significant Earnings Decrease	
	DPSAi25	DPSAi10	DPSAd25	DPSAd10
	1	2	3	4
Constant	-3.66116 (-4.24)***	-1.8484 (-3.38)***	0.34788 -0.24	0.7984 -0.74
FamNon	0.650259 (3.27)***	0.45885 (3.54)***	0.02784 -0.08	0.4025 -1.56
Lsales	0.07395 0.39	0.08782 -0.72	-0.77448 (-2.20)**	-0.7006 (-2.66)***
MTB	-0.002123 (-0.50)	-0.001353 (-0.48)	-0.00831 (-0.43)	-0.02471 (-2.23)**
Lever	-0.46299 (-0.64)	-2.0332 (-4.21)***	1.69538 -1.48	2.0937 (2.48)**
TanA	1.1457 (2.64)***	1.0957 (3.85)***	-0.24104 (-0.33)	-0.4589 (-0.82)
ROA	3.4165 (3.28)***	3.7322 (4.76)***	-9.10135 (-3.91)***	-10.497 (-5.33)***
No. of obs	1472	1472	752	752
Log-Likelihood Ratio	-412.069	-823.511	-156.738	-244.431
Chi-squared	26.686***	79.092***	21.69***	49.948***

Figure 9 *Smoothing asymmetry (table)*

Source: Lau, J., & Wu, H. (2010). Founding Family Ownership and Dividend Smoothing. Working Paper

DPSAi25, DPSAi10, DPSAd25, DPSAd10 are the independent variables for each respective regression; the Z statistic of ***, ** and * denotes a significance of 1%, 5% and 10% respectively.

The results show that family businesses on average are more likely to increase dividends by 25% when there are increases in profits than non-family businesses, with a positive and highly significant coefficient. This coefficient of 0.65 means that on average family businesses are about twice as likely to increase dividends by at least 25% in relation to positive increases in profits. A similar result is obtained with the dependent variable equal to at least a 10% increase in dividends: the coefficient of the family variable equal to 0.46 means that family businesses on average increase dividends about 1.6 times compared to family businesses. As regards the observations that include companies with significant decreases in profits (models 3 and 4), the coefficient relating to the family indicator is again positive but statistically not significant; this implies that there are no differences between family and non-family businesses regarding the propensity to cut dividends in relation to decreases in profits.

The authors' empirical analysis, therefore, demonstrates that the relevant difference in the level of dividend smoothing between family and non-family businesses, documented in Table 7, is mainly due to the fact that family businesses are more likely to increase dividends in response to increases in profits.

4.2 Relationship between executive compensation and dividend payout ratio

In this paragraph we want to explain the relationship between executive compensation and the dividend payout ratio. As already described in Chapter 2, the literature has advanced three main paradigms to explain the "dividend puzzle":

- Modigliani and Miller (1961) explain the “tax clientele theory”, according to which each investor selects portfolios based on their own tax rates. A change in dividends changes the tax position of shareholders and induces trading so that investors rebalance their portfolios;
- The "signaling theory" (Bhattacharya, 1979; John and Williams, 1985; Miller and Rock, 1985) argues that managers use dividends to report private company information to investors;
- The "free cash flow hypothesis" (Easterbrook, 1984; Jensen, 1986) explains that an increase in dividends is favorably received by investors because it means that managers have less liquidity to invest in projects with negative net present value (negative NPV).

Increasing attention by scholars is directed to this last point as the dividend payout is considered an effective tool in mitigating agency costs, in fact the dividend payout can potentially increase the threat of lack of liquidity which can lead to increase the sensitivity of

management turnover in relation to poor performance (Zwiebel, 1996), and provides incentives for managers to avoid over-investment in individual benefits and privileges (Lie, 2000; DeAngelo et al., 2004; Tirole, 2006).

Chang (1993) justifies the relationship between executive compensation and dividend payout by demonstrating that it reduces excessive reinvestment or investment in projects with negative NPV. Future revenues from these negative NPV projects are often less than the non-payment of dividends. Shareholders, therefore, must weigh their ideas regarding management's forecasts of relative profitability of reinvestments with the likelihood that management will pay dividends. DeAngelo et al. (2004) assert that firms pay dividends to mitigate agency problems, and Lie (2000) suggests that increased dividend payments mitigate agency problems associated with excess funds available to management. The relationship between investment opportunity and CEO compensation is established by Smith and Watts (1992) and Gaver and Gaver (1993), who argue that firms with low investment opportunities have CEOs with low compensation. Tirole (2006) shows that managers face a trade-off in determining dividend payout levels.

If the dividend payout is an effective tool for mitigating agency costs, it follows that an efficient compensation package for managers must be designed to reward appropriate levels of dividend payout. Consistent with this idea, some scholars have noted a positive relationship between dividend payments and executive compensation. Lewellen et al. (1987) find a significant positive relationship between executive cash compensation (salary and bonus) and dividend payout, a result consistent with the study by Healy (1985) which argues that an upper limit on bonuses paid to executives is a function of dividends paid. This evidence suggests that a model that links the dividend payout to executive compensation may be able to provide useful considerations regarding the dividend policy. However, it should be noted that there are numerous tools to provide management incentives, in addition to dividends, such as the presence of institutional investors and the Board of Directors. If we consider these other tools within the governance mechanisms, the relationship between dividend payout and managerial compensation is attenuated.

Bhattacharyya (2007) develops a model based solely on dividends and executive compensation for two reasons. First, the model must be as simple as possible and secondly, retained profits are a powerful source of investment in developed countries, being a source characterized by fewer problems than equity or debt. For this reason, the dividend payout represents a key element in the corporate finance strategy of companies. An appropriate dividend policy can be crucial for corporate performance and therefore an important tool for corporate governance. The model is based on the principal-agent approach: the shareholders (principal) prepare a menu of contracts to select the managers (agent) in accordance with the

level of productivity, which is known to the agent. The author assumes that business owners entrust resources to management whose primary goal is to find and exploit investment opportunities with positive NPV. Ideally, the manager invests in all profitable investment projects, and if liquidity remains available, the owners would prefer those assets returned to them (e.g. in the form of dividends) rather than being invested in projects with negative NPV. From the principal-agent perspective, the principal's problem is to define a pay contract that incentivizes the manager to act in this way. Bhattacharyya starts by defining a linear remuneration contract where executive compensation is a linear function of dividends and output. If this contract were a linear function of dividends only, then the manager would be willing to define a dividend payout ratio equal to 100%; since there is also output as a component of this linear function, the manager tries to achieve a balance between dividend payments and investments.

This contract can be modeled as follows:

$$w_j = b_0 + b_d D_j + b_Y Y_j$$

where is it:

- w_j → managerial compensation for the company j. It is a stochastic variable because it depends on the output Y_j
- D_j → dividends declared by the company j
- Y_j → output from the production function $Y_j = \Theta_j \ln (C_j - D_j) + \varepsilon_j$
- C_j → available cash of firm j
- Θ_j → managerial productivity parameter; it is asymmetrically known only by the manager
- ε_j → error
- b_0, b_d, b_Y → coefficients

Substituting the equation of the production function into the equation of the wage contract, and carrying out some steps, we arrive at the following relationship:

$$ln\,(1 - \frac{Dj}{Cj}) = \frac{1}{\Theta j\, bY}\, w_j - \frac{b0}{bY\Theta j} - \frac{bD}{bY\Theta j}\, D_j - lnC_j - \frac{1}{\Theta j}\, \mathcal{E}_j$$

$$ln\,(1 - PAYOUTRATIO) = \beta_0 + \beta_1\, COMPENSATION + \beta_2\, DIVIDEND + \beta_3\, LNINCOME + \mathcal{E}$$

where PAYOUTRATIO = D_j / C_j .

The predicted signs for the coefficients of the independent variables are as follows:

- $\beta_1 > 0$ → basic assumption of the model;

- $\beta_2<0$ → the negative relationship between dividends and retained profits is not surprising, since as dividends increase, the PAYOUT ratio increases and therefore the share of retained profits decreases;
- $\beta_3<0$ → the positive relationship between earnings and PAYOUT ratio is much more complex. At first glance, it might seem that, by construction, an increase in profits is associated with a decrease in the PAYOUT ratio. However, in this case from the production function $Y_{j\,it}$ can be deduced that the marginal returns with respect to the investment are decreasing. The manager allocates the available liquidity Cj between investment and dividends in such a way that, ex ante, the marginal compensation from the distribution of dividends (b_D) is equal to that deriving from the production function (b_Y). However, as can be seen from the equation of the production function Y_j, the expected marginal production increases as investment increases at decreasing rates; therefore, as C_j increases , managers will find it convenient to distribute proportionately higher dividends. For this reason, a positive relationship is assumed between C_j and the PAYOUT ratio.

The literature, regarding information asymmetry problems and in particular adverse selection, argues that managers have different productive qualities (for example they have different abilities to identify projects with positive NPV), which are privately known to managers but are not observable attributes. Remuneration contracts are therefore defined in such a way that non-competent managers (with low quality levels) are paid ex-ante with the "reservation wage", or with the lowest salary that the agent is willing to accept for that type of job, while managers with higher qualities are paid ex-ante with "information rent", or with the income that the agent receives for having information not provided to the principal. The number of annuities depends on the probability of distribution of managerial quality. In equilibrium, the optimal remuneration contract will be the one whereby high-quality managers will receive the most income and invest in many profitable projects, while low-quality managers will only receive reservation wage and invest little. Therefore, it follows that such contracts ensure that, for a given amount of available liquidity, high-quality managers will receive more compensation and invest more in productive activities and therefore have less liquidity to distribute in the form of dividends. The payout ratio will therefore be negatively correlated with managerial quality, which in turn is positively correlated with remuneration. Ultimately, the dividend payout ratio, according to the Bhattacharyya model, is negatively correlated with managerial compensation.

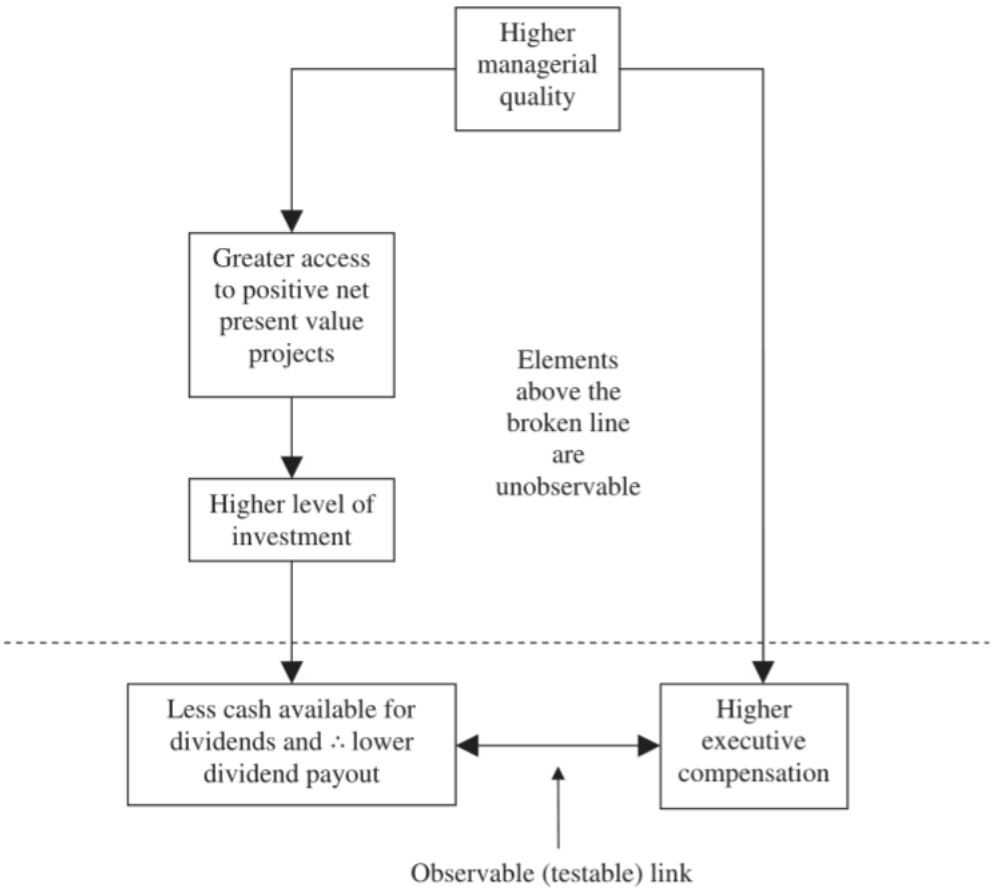

Figure 10 *Dividend Payout and Executive compensation*

Source: Bhattacharyya, N., Mawani, A. and Morrill, CKJ (2008) 'Dividend payout and executive compensation: theory and evidence', Accounting and Finance, 48, 4, 2008, pp 521-541

This model is consistent with the empirical studies by Fama and French (2002), which show that "firms with higher investments have lower long-term dividend payouts" and "firms with lower investments have high dividend payouts". Bhattacharyya et al. (2008) test the model through an analysis on the dividend payout of American companies in the period 1992-2001 and the results found are consistent with the assumptions of the model, also by checking for the size of the companies, the leverage, the market-to-book value, "capital expenditure" and systematic risk. First the authors test the model equation through a Tobit regression model (without entering any control variables) and find the following results:

Tobit results for earnings retention (no control variables)

$$\ln(1 - PAYOUT) = \beta_0 + \beta_1 COMPENSATION + \beta_2 DIVIDEND + \beta_3 LNINCOME + \varepsilon.$$

		Coefficients (asymptotic *t*-statistics)		
Independent variable	Expected sign	Model I	Model II	Model III
CONSTANT	?	0.47 (14.72***)	0.45 (13.94***)	0.45 (14.17***)
TOTCOMP[a]	+	0.47 (19.68***)		
BONUS[a]	+		2.35 (13.96***)	
OPTIONS[a]	+			0.60 (19.25***)
DIVIDEND[b]	–	–0.49 (–14.34***)	–0.50 (–13.93***)	–0.44 (–13.05***)
LNINCOME	–	–0.17 (–21.79***)	–0.16 (–19.67***)	–0.15 (–20.13***)
Pseudo-R^2		0.08	0.07	0.08
Wald χ^2 (3 d.f.)		1199.9***	1044.0***	1181.7***
N		8904	9022	8942

*, ** and *** indicate that the statistic is significant at $p < 0.10$, $p < 0.05$ and $p < 0.01$, respectively.

Figure 11 *Regression analysis results, without control variables (table)*

Source: Bhattacharyya, N., Mawani, A. and Morrill, CKJ, 2008, "Dividend payout and executive compensation: theory and evidence", Accounting and Finance, 48, 4, 2008, pp 521-541

As can be seen from the table, the coefficient β_1 ($\beta_1 = 0.47$, t = 19.68) is positive and highly significant, thus confirming the assumptions of the model. As for the coefficients β_2 and β_3, on dividends and earnings, both are negative and significant as predicted by Bhattacharyya. However, not considering variables that could have some influence on the dividend pay-out ratio (control variables), the R^2 of the regression model, which indicates the variance of the dependent variable explained by the variance of the independent variables, is approximately the 8%, which is too low to accept these results.

For this reason, the authors included the following control variables in the equation:

- DEBTEQ → ratio between long-term debt and equity of the firm. It is a measure of the firm's leverage and specifically, high leverage values (therefore associated with high financial and bankruptcy risks) should be associated with a low dividend payout;
- MKTBOOK → ratio between the market value of the company's shares and the book value of the company's equity. It is a measure used to identify the investment opportunities of the firm itself, regardless of the quality of the manager. The literature suggests that high market-to-book-ratio values are associated with low dividends;
- CAPEXP → measure that indicates the capital expenditures of the company, reported in the cash flow statement. Such expenses can be assumed to be negatively associated with the dividend pay-out;

- BETA → measure that indicates the systematic riskiness of a company. It can be assumed that the BETA is negatively associated with the dividend pay-out ratio;
- η → Dummy variables for the years and for the different industry groups.

Therefore, the regression model, which also includes the control variables, becomes the following:

$$ln\,(1 - PAYOUTRATIO) = \beta_0 + \beta_1\,COMPENSATION + \beta_2\,DIVIDEND + \beta_3\,LNINCOME + \beta_4\,DEBTEQ + \beta_5\,MKTBOOK + \beta_6\,CAPEXP + \beta_7\,BETA + \eta_1 \ldots \eta_{53} + \varepsilon$$

		Coefficients (asymptotic *t*-statistics)		
Independent variable	Expected sign	Model I	Model II	Model III
CONSTANT	?	−0.16	−0.19	−0.14
		(−0.49)	(−0.57)	(−0.44)
TOTCOMP[a]	+	0.11		
		(2.96***)		
BONUS[a]	+		0.49	
			(1.68**)	
OPTIONS[a]	+			0.22
				(4.55***)
DIVIDEND[b]	–	−0.73	−0.74	−0.73
		(−8.09***)	(−8.27***)	(−8.18***)
LNINCOME	–	−0.13	−0.13	−0.13
		(−7.60***)	(−7.14***)	(−7.71***)
DEBTEQ	+	−0.07	−0.06	−0.07
		(−1.50)	(−1.44)	(−1.49)
MKTBOOK	+	0.01	0.02	0.01
		(2.25**)	(3.17***)	(1.86**)
CAPEXP[b]	+	0.07	0.09	0.06
		(1.57*)	(1.92**)	(1.31*)
BETA	+	0.68	0.69	0.67
		(14.98***)	(15.50***)	(14.77***)
Pseudo-R^2		0.33	0.33	0.33
Wald χ^2 (60 d.f.)		1965.8***	1975.1***	1977.6***
N		4198	4235	4219

*, ** and *** indicate that the statistic is significant at $p < 0.10$, $p < 0.05$ and $p < 0.01$, respectively.

Figure 12 *Regression analysis results, with control variables (table)*

Source: Bhattacharyya, N., Mawani, A. and Morrill, CKJ (2008) 'Dividend payout and executive compensation: theory and evidence', Accounting and Finance, 48, 4, 2008, pp 521-541

The results, described in Figure 12, confirm that all variables relating to executive compensation (TOTCOMP, BONUS, OPTIONS) are negatively associated with the dividend payout ratio and the coefficients are significant in all specifications. The dividends declared (DIVIDEND) and the log of profits (LNINCOME) are positively associated with the dividend payout ratio; the market-to-book ratio (MKTBOOK), capital expenditure (CAPEXP) and systematic risk (BETA) are negatively associated with the dividend payout, as the authors expected, and all coefficients are statistically significant in the 3 regressions.

The coefficient of the DEBTEQ variable, which highlights the firm's leverage, is negative as opposed to what the authors assumed, but this coefficient is not significant.

In conclusion, the premise behind the model is that the shareholders use the remuneration agreement in such a way as to induce managers to invest the available liquidity in projects with positive NPV, until these are all identified, and disburse the remaining part of liquidity to shareholders in the form of dividends. Managers with a high level of productivity have access to far more investment opportunities with positive NPV and, as a result, invest much more in such investment projects, paying fewer dividends. Conversely, managers with low productivity have access to fewer investment opportunities and therefore distribute more profits in the form of dividends.

Consequently, the dividend payout is negatively correlated with managerial productivity. In equilibrium, managers with higher productivity are paid more and, therefore, it follows that the dividend payout is negatively associated with managerial compensation. The results of the study of American firms in the years 1992-2001, described above, are therefore consistent with the predictions of the Bhattacharyya model.

Other empirical studies analyze the relationship between corporate payout policy and executive compensation. Fenn and Liang (2001), in a study conducted on 1100 non-financial firms during the period 1993-1997, examine the influence of managerial incentives on firms' payout policy.

In general, managerial incentives can influence payout policy in two ways: first, managerial incentives based on shares or stock options, by aligning interests between shareholders and management, can lead to higher total payout levels; on the other hand, these incentives can have a significant impact on the composition of the payout policy, in fact the significant growth over the years of the repurchase of shares at the expense of dividend payments suggests a fundamental change in corporate payout decisions that are linked to the growing use of share-based managerial incentives, such as stock options.

As suggested by various empirical evidences, the presence of stock options in the top management remuneration package gives incentives to reduce dividends, as the value of the stock options is negatively correlated with the future payment of dividends. In any case, the authors are uncertain about the effect of managerial incentives on the firm's total payout: management should be indifferent between retaining liquidity resulting from a reduction in dividends or using it to carry out a share repurchase, as the value of the stock options should be identical in both situations. To test the relationship between payouts and stock option incentives, the authors use the following variables:

- variables relating to the payout policy → the “dividend yield” was used to measure the dividend payout, ie the ratio between unit dividends and the market price of a share. To measure the repurchase payout, the ratio between unit buybacks and the market price of a share was used;
- variables linked to managerial incentives → the shares and stock options owned by executives as a percentage of the company's total shares were used as a measure of managerial incentives;
- control variables → ratio between net operating cash flow and total assets, as a proxy for free cash flow, market-to-book assets as a proxy for investment opportunities, the logarithm of total assets as a measure of the size of firm, the ratio of debt to total assets as a measure of the firm's debt, the ratio of the volatility of operating income (standard deviation of EBITDA) to total assets as a measure of the firm's uncertainty and risk.

The authors estimate 4 Tobit regression models related to the different payout variables taken into consideration. The coefficients in the table below, which indicate the marginal effects of the independent variables on the dependent variable, are multiplied by the standard deviation of the independent variables and by a factor of 10^2, so that the marginal effect corresponds to the change in percentage points of the dependent variable.

	Dividend payout	Repurchase payout	Total payout	Repurchase share
Managerial stock incentives:				
1. Management shares / shares outstanding	0.01 0.00 (0.96)	0.11 0.01 (0.79)	-0.09 -0.01 (0.89)	1.28 0.12 (0.94)
2. Management options / shares outstanding	-15.87** -0.38 (0.00)	5.44** 0.13 (0.00)	-5.65* -0.13 (0.04)	761.69** 18.03 (0.00)
Other explanatory variables:				
3. Net operating cash flow/ assets	4.54** 0.50 (0.00)	5.03** 0.55 (0.00)	8.63** 0.94 (0.00)	-2.79 -0.30 (0.90)
4. Market-to-book assets	-0.39** -0.47 (0.00)	-0.29** -0.35 (0.00)	-0.60** -0.72 (0.00)	4.51** 5.40 (0.00)
5. Log of assets	0.20** 0.30 (0.00)	0.26** 0.39 (0.00)	0.48** 0.72 (0.00)	1.73 2.61 (0.19)
6. Debt / assets	-0.74** -0.12 (0.00)	-1.60** -0.26 (0.00)	-2.33** -0.38 (0.00)	-13.73 -2.26 (0.23)
7. Volatility of operating income / assets	-4.26** -0.18 (0.00)	2.08 0.08 (0.12)	-0.18 -0.00 (0.92)	159.24** 6.44 (0.01)
Number of observations	1108	1108	1108	922
Mean of dependent variable x 10^2	1.28	1.18	2.45	47.80
Log likelihood	1722.9	1697.9	2063.6	-777.3

** Statistically significant at 1 percent level
* Statistically significant at 5 percent level

Figure 13 *Tobit estimates of the determinants of corporate payouts (table)*
Source: Fenn GW, Liang N., "Corporate payout policy and Managerial stock incentives", Journal of Financial Economics

In table 13 the dependent variables, in the 4 regression models, are respectively the dividend payout, the repurchase payout, the total payout and the repurchase share. The first term is the marginal effect multiplied by a factor of 10^2; the second term is the marginal effect multiplied by 10^2 and by the standard deviation of the independent variable; the third term (in parentheses) is the p-value of the marginal effect.

The results, presented in table 13, suggest that:

- there is no significant relationship between the share ownership owned by the management and the payout: the marginal effects of share ownership are approximately equal to 0 in all 4 specifications and are not significant. The authors, subsequently, to investigate this result, divide the sample into 4 sub-samples (companies with high / low values of management ownership and companies with high / low values of the market-to-book) and find that managerial ownership encourages

more high payout levels in companies characterized by major agency problems, therefore with low market-to-book ratios and low managerial ownership;

- stock options owned by management have a significant effect on the payout policy: an increase in the standard deviation of stock options reduces the dividend payout by 38 percentage points (-0.38) and increases the repurchase payout by 13 percentage points (0.13). These effects are consistent with the assumption that stock options modify the composition of the payout policy by discouraging the use of dividends. Furthermore, the relationship between total payout (sum of dividend payout and repurchase payout) and stock option shows that the total payout only decreases by 13 percentage points in relation to an increase in the standard deviation of stock options;
- the coefficients of the remaining dependent variables strongly support agency theories relating to payout. In each regression model (dividends, share buybacks, and total payout) the coefficients of the free cash flow variables have the expected sign and are statistically significant. For example, an increase in the standard deviation of net operating cash flow divided by total assets (proxy for free cash flow) leads to a 50 and 55 basis point increase in dividends and share buybacks respectively, and an increase 94 basis points in total payout; a decrease in the standard deviation of the market-to-book variable increases dividends and repurchases by 47 and 35 basis points respectively, and the total payout by 72 basis points.

The authors also note that the signs and magnitude of the coefficients in the regression models of dividends and share repurchases are quite similar: this suggests that dividends and share buybacks perform a similar function and in some respects can be considered as substitutes. In this sense, the fourth regression model, having as a dependent variable the mix between dividends and share repurchases, manages to show this substitutability between the two payout methods. This mix does not vary significantly with respect to net operating cash flow, company size and leverage, however it systematically varies in relation to growth opportunities, measured through the market-to-book variable. This result suggests that firms with high market-to-book values face not only greater investment opportunities, but also greater uncertainty regarding the level of profitability of such opportunities; in the presence of greater uncertainty, companies require a more flexible payout policy and therefore turn more to the repurchase of shares rather than the distribution of dividends. Furthermore, the EBITDA volatility results provide further evidence regarding the importance of flexibility: an increase in volatility reduces the use of dividends and significantly increases the share repurchase rate in the payout policy.

Consistent with these studies Lambert, Lanen and Larcker (1989) examine the relationship between the initial adoption of stock options for senior level executives and the resulting change in corporate dividend policy and find that stock options are an incentive to reduce dividends. Cuny et al. Arrive at the same result. (2008), who show that the higher the option plans, the lower the total payout (dividends and share repurchases). Finally, Barkley and Pan (2009), in their empirical study, show that CEOs with equity plans prefer to pay out cash dividends rather than buy back stock, while CEOs with option plans prefer to buy back stock rather than pay dividends to shareholders. The two authors suggest the following interpretation: share buybacks usually increase the share price, which in turn increases the value of stock options and therefore incentivizes CEOs with option plans to repurchase shares. Furthermore, they suggest that large firms with high free cash flows, and firms with low investment opportunities, distribute greater dividends to shareholders; conversely, companies with growth opportunities tend to keep their profits to invest them again in profitable projects.

4.3 Relationship between executive compensation and dividend payout ratio in family and non-family businesses

The literature has analyzed in depth the issue of agency costs and how these can be mitigated through executive compensation and, in particular, through the relationship between executive compensation and dividend policy. In any case, it must be remembered that agency costs are mitigated differently on the basis of the corporate governance structures and institutional characteristics of the different countries (La Porta et al., 2000). However, there is not much empirical research dealing with the relationship between executive compensation, dividend policy, and ownership structures together.

From a theoretical perspective, the literature suggests that dividend policies may be more or less relevant in the mitigation of agency costs in a governance context dominated by family-type businesses, in fact the nature of the agency conflict differs depending on whether we are in a market-oriented country (USA or UK) or a non-market-oriented country (continental Europe). In the United States or the United Kingdom, the ownership structure of businesses is typically dispersed and the agency problem arises precisely from the separation between ownership and control, while countries in which a concentrated ownership structure is dominant (such as family businesses), the problem of agency originates mainly in relation to the expropriation of minority shareholders by the controlling shareholders (Rondi and Elston, 2009). Typically, the latter type of company suffers from fewer agency problems than

companies characterized by dispersed shareholding and, therefore, it is not clear whether dividend policy and executive compensation play a relevant role in this regard.

As far as dividend policy is concerned, the literature suggests, as already described above, three main paradigms: (1) the “clientele theory”, (2) the “signaling theory” and (3) the agency paradigm. The "clientele theory" believes that investors choose companies with dividend policies in line with their preferences and, above all, with their tax regimes; therefore, a change in the payout policy can lead investors to switch companies to invest in. In accordance with the "signaling theory", dividends send signals and information external to the stock market, finally, according to the agency theory, the payout policy is a mechanism that serves to mitigate conflicts between managers and shareholders. Bhattacharyya (2007) has developed a new model, which is based on the agency paradigm, according to which dividends and profits are the components of the managerial remuneration agreement, defined by the (principal) shareholders in such a way as to make the manager reveal (agent) their productivity. In equilibrium, managers with low qualities, and therefore with low productivity, are paid little while competent managers with high productivity are paid with high remuneration.

This model has been successful in explaining the negative correlation between dividend payout ratio and executive compensation, that is: competent managers, paid with high remuneration, are able to find numerous investment projects with positive NPVs and therefore, needing liquidity, pay less dividends; conversely, managers with low qualities are not able to invest in projects with positive NPV and therefore, having high liquidity available, they distribute higher dividends. Empirical evidence in market-oriented countries, such as the USA and Canada (Bhattacharyya et al., 2008a, 2008b) and in Germany, in which the presence of banks in the shareholding of companies is relevant (Bhattacharyya and Elston, 2011) support the hypotheses of Bhattacharyya model.

In a context characterized by highly concentrated shareholdings, as in Italy, where the presence of family businesses is dominant, the relationship between family control and agency costs highlights various issues to be addressed. Family control is often seen as a solution to agency costs, as shareholders and management (often tied to the family) both pursue the goal of maximizing profit. Favero et al. (2006) found that Italian family businesses perform better than those with dispersed shareholding. Thesmar and Sraer (2007) arrive at similar conclusions showing a superior performance of family businesses listed on the French stock market, and also highlight that family businesses tend to pay less dividends. On the other hand, the separation between control rights and cash flow shares, which is usually present in family businesses through pyramid groups, syndicate agreements and dual-class voting structures, allows shareholders to extract private benefits of control at the expense of of

minority shareholders. In this sense, Barontini and Bozzi (2010) examine executive compensation in family businesses and find that internal CEOs are paid more than external CEOs and furthermore, the compensation package of internal CEOs is based less on equity and indicators of performance, testifying to this extraction of the private benefits of control. Furthermore, as regards the dividend policy, the combination of family control and a concentrated ownership structure often involves the expropriation of the interests of minority shareholders through the payment of low dividends. In fact, La Porta et al. (2000) show that civil law countries, such as Italy, pay less dividends than common law countries.

Therefore, it is interesting to understand if the dividend policy, linked to executive compensation, has a disciplinary role in the mitigation of agency costs in family businesses. One of the few evidences on this topic, relative to the Italian context, is the contribution of Bhattacharyya et al. (2014). The authors test the Bhattacharyya model on the relationship between executive compensation and dividend payout in the Italian context, characterized by the prevalence of family business, using the following econometric model:

$$ln\ (1 - PAYOUT) = \beta_0 + \beta_1\ COMPENSATION + \beta_2\ DIVIDEND + \beta_3\ LNINCOME + \mathcal{E}$$

where: PAYOUT is the ratio between total dividends and net profits, COMPENSATION is the sum of the basic remuneration and the manager's bonuses, DIVIDEND is the total dividends and LNINCOME is the logarithm of the net profits. As already seen above, the signs provided for the coefficients are the following:

- $\beta_1 > 0$
- $\beta_2 < 0$
- $\beta_3 < 0$

To test the model's hypotheses, the authors insert the following control variables:

- FAMCON → dummy variable to distinguish family businesses from non-family businesses. A business is considered family if the family members have a majority stake in the business and have an executive or non-executive role on the Board of Directors. In a family business, family relationships and ties should serve to mitigate agency costs, furthermore family members have the incentive to define high levels of payout ratios as they prefer to pay dividends to themselves (because they have a high shareholding) rather than leaving liquidity in the company's coffers. For these reasons the authors expect the sign of the coefficient of this variable to be negative;
- DEBTEQUT → ratio between debt and equity. In the case of high debt-to-equity ratios of the company, it is very likely that management deems it appropriate to keep more

liquidity in the company's coffers in order to reduce the possibility of bankruptcy due to high debt. The sign for the coefficient of that variable should therefore be positive;

- MTB → ratio between the market value of the company's shares and the book value of the equity. It is a measure used to indicate the investment opportunities of the firm, so the higher the investment opportunities of a firm, the more that firm will prefer to hold liquidity for such investments rather than distribute it in the form of dividends. The sign of the coefficient of this variable should therefore be positive.

To test the model, the authors used a sample consisting of 77 listed Italian companies belonging to the manufacturing sector for a total of 586 observations between 2000 and 2007. Furthermore, the observations with negative net profits were excluded as the model includes the logarithm of net profits (LNINCOME), therefore profits must be positive. The table below shows the results of the regression analysis:

Independent variables	*Predicted sign*	*Coefficients (Asymptotic t-Statistics)*		
		Model 1	*Model 2*	*Model 3*
CONSTANT	?	–0.99***(–2.58)	–0.97**(–2.52)	–1.19***(–3.02)
COMPENSATION	+	0.12×10^{-3}* (1.37)	0.14×10^{-3}* (1.56)	0.14×10^{-3}* (1.52)
DIVIDEND	–	-0.23×10^{5} (–1.27)	-0.35×10^{-5}** (–1.90)	-0.42×10^{-5}** (–2.23)
LNINCOME	–	0.25×10^{-1} (0.6)	0.46×10^{-1} (1.13)	0.74×10^{-1} (1.72)
FAMCON	–		–0.39*** (–3.50)	–0.4*** (–3.51)
DEBTEQUT	+			0.19*** (2.18)
MTB	+			-0.61×10^{-1} (–1.67)
Pseudo R^2		0.006	0.028	0.06
Wald χ^2		2.482	14.665***	25.66***
N		357	357	357

Figure 14 *Results of the regression analysis (table)*

Source: Bhattacharyya, N., Elston, JA and Rondi, L., 2014, "Executive compensation and agency costs in a family controlled corporate governance structure: the case of Italy", Int. J. Corporate Governance Inderscience Enterprises Ltd, vol. 5 (3/4), p. 119-132.

The results, shown in the table, highlight that:

- managerial remuneration is negatively correlated to the dividend payout ratio in the 3 different specifications and this evidence is consistent with the model, which suggests that higher remuneration levels are correlated with low dividends as higher managerial salaries are associated with higher managerial qualities that lead to greater investment in projects with positive NPV;

- the first equation, not including the FAMCON variable and the other control variables, is overall not significant from the Wald test analysis. This means that, since in the Italian context many companies are familiar, the FAMCON variable is a variable that explains the dependent variable very well and therefore, not considering it in the model, could lead to the so-called “omitted variable bias”;
- the signs of the coefficients of the LNINCOME and MTB variables are different from the predictions and are not significant. A possible explanation could be that the model assumes a linear function for managerial compensation and a logarithmic function for production Y. In this case a linear function has been assumed for managerial compensation only for reasons of data tractability, however in reality it is often non-linear functions are used. Furthermore, it is possible that the production function in the Italian context deviates significantly from the logarithmic function underlying this model;
- the sign of the FAMCON variable is consistent with the theory and is significant, therefore family businesses establish higher levels of payout ratios than non-family businesses. The interaction term FAMCON * COMPENSATION was also estimated by the authors; however, this variable is not statistically significant. This result indicates that the negative relationship between managerial compensation and dividend payout does not differ between family and non-family businesses; this evidence was interpreted by the authors as supporting the model, which suggests that higher compensation is linked to CEOs with higher investment opportunities, leaving less cash to distribute in the form of dividends.

Ultimately, the authors confirm the significant role of the dividend policy in the mitigation of agency costs in contexts characterized by family businesses. The hypothesis of the Bhattacharyya model is confirmed, as an increase in executive compensation reduces the level of dividend payout to shareholders, and family businesses also pay higher dividends. The latter evidence appears to be consistent with the idea that families want to build a good reputation towards minority shareholders, as suggested by LLSV (2000), therefore the controlling families force the management, especially in the case of external CEOs, to distribute dividends to shareholders rather than using cash for personal purposes.

In summary, there is no single opinion shared by all about the role of executive compensation and the dividend policy in mitigating agency costs: some evidence shows that these tools are used by management to extract personal benefits, thus resulting in they themselves cause agency problems, while others support their incentive role, both in contexts characterized by dispersed shareholdings and in family businesses.

5 IMPACT OF COVID-19 ON DIVIDEND DISTRIBUTION AT GLOBAL LEVEL

The danger that a virus could have repercussions on the real-world economy, as well as on our everyday life, was remote and difficult to predict until the first months of 2020. Subsequently, between February and March of the same year, the Coronavirus epidemic has hit all continents, forcing the governments of countries to impose a lockdown deemed necessary for the containment of the virus and its effects on individuals. The forced closure has extended to all economic activities, excluding those of very basic necessity (mainly supermarkets and pharmacies) for obvious reasons, and this phenomenon has led to a global economic paralysis, with a vertical fall on both the demand side and the offer side. Companies all over the world have thus had to face the darkest period of recent history (and beyond) with very serious repercussions on their financial stability and, obviously, with implications on profit distribution policies. In the first months of the year, the companies did not implement any type of changes at an operational or financial level as the danger was only potential and the emergency situation seemed to be confined only to certain areas of the world, mainly in China in the Wuhan region. When the virus crossed the Chinese (and Asian in general) borders and landed in Europe and in America the companies in these areas have had to radically change their investment, financing and remuneration choices for shareholders and have been completely displaced by the rapid succession of events that led to an unprecedented health and economic crisis, with repercussions series for all economies of the world. Corporate dividend policy has also changed radically since the second quarter of 2020; this final paragraph has the aim to describe the impact that the Coronavirus has had on the choices regarding the payment of dividends, focusing not exclusively on the US context but extending our analysis to the main global economies.

Let's start our analysis by taking a step back and briefly analyzing the dividend situation in 2019. Overall global dividends this year rose 3.5% over the previous year, marking an all-time high of $1430 billion distributed. This growth was mainly driven by the United States (490.8 billion distributed, +4.7% compared to the previous year), Canada (+9.5%), Japan (85.7 billion, +6.3 % in underlying terms) and emerging countries, e.g. Russia achieved an underlying dividend growth of 26.7%. The areas of the world that have remained behind compared to the global average are above all the Asia-Pacific region (-0.2% in underlying terms) and Europe with a total disbursement of 251.4 billion (-2% compared to the previous year, but if we adjust the data to fluctuations in exchange rates and other factors, the result is an underlying growth of 3.8%). Dividend growth in Europe was the slowest in the world not

only in reference to 2019, but also if we consider the entire previous decade; in fact, the underlying European growth from 2009 to 2019 was equal to 53% against a global average of 97% (approximately 7% per year). For cognitive purposes, we also report that the total distribution of dividends globally in the last decade is equal to 11.400 billion dollars.

Italy, together with the Netherlands, is the country that recorded the greatest increase in the distribution of dividends in 2019 with a growth of 6% compared to the previous year, which becomes 8% if considered in real terms (adjusted for the parameters set out above). The sum disbursed by the companies is equal to 16 billion dollars, with the transport and public utility services sectors having a heavy impact on the figure thanks to the acquisition of the Spanish Abertis by Atlantia and thanks to the strong increase of Enel and Terna.

In the first quarter of 2020, the pandemic had virtually no impact on the distribution of dividends by companies for the reasons explained above. Globally, it actually increased by 3.6% with a total outlay of $ 275.4 billion, driven by North America (+5.6% in real terms compared to the previous year for Canada), from Japan and partly from Europe (+0.8% underlying growth). In the second quarter of 2020 the situation underwent radical changes due to the lockdown and the health crisis due to Covid-19 caused a net reduction in company profits as well as a physiological decrease in dividends, phenomena that we will now analyze specifically.

The second quarter of the year was upset by an unprecedented event that disrupted everyday life around the world, causing a dramatic impact on dividends.

The overall decline was 22% from the previous year, equivalent to an underlying decrease of 19.3%, the worst quarterly decrease at least since the global financial crisis of 2007. Although dividends in absolute value have remained at levels similar to the years after the financial crisis, the percentage decrease that has been witnessed is unprecedented in the last decade, with an overall decline of 108.1 billion, reaching a value of 382, 2 billion dollars.

In the world about 27% of companies have cut the amounts distributed as dividends, and half of them have even canceled the distributions. The dividends that have most resisted the impact of the pandemic are those of the healthcare and communications sectors, while distributions from the financial sector are among those that have suffered the most. We note that the data that most influenced the overall result are the negative results of Europe (-44.5%) and the United Kingdom (-54.2%).

We broaden our discussion by going to see how the distribution of dividends has actually changed in the most developed economic areas of the planet, with a focus on the most significant states. 81

5.1 North America

Dividends in North America have risen very fast over the past decade with growth of 136% compared to 2009. In 2019 the 42% of global dividends were distributed precisely in this area of the world, more than double compared to the second area (Europe with 20% of global dividends). In the second half of 2020, the figure has remained almost unchanged, with a slight decrease in the North American figure (from 42% to 39%) which has little significance.

Going back to analyzing how Covid-19 has changed the choices of companies, North America is undoubtedly the geographical area that has best withstood the impact of the pandemic. Dividends for the second quarter were almost unchanged from the previous year, with a slight increase of 0.1% and a total distributed value of 123 billion dollars.

In the United States, most companies set dividends once a year and then distribute them in four equal installments. Despite the health and economic emergency, the companies do not have modified the distributions, hundreds of companies opted instead to suspend their share buyback programs with total savings of more than 700 billion dollars (estimate provided by Goldman Sachs).

As reported by Janus Henderson's analysis in his quarterly report “Janus Henderson Global Dividend Index "(JHGDI):

1. Of the 335 companies surveyed in the United States, 296 of them (or 90%) increased their dividends or kept them constant despite the global pandemic. More than half of the remaining 39 companies have canceled the dividend completely, as done by giant Boeing, as well as other airlines and travel companies. Auto giants General Motors and Ford also blocked any dividend payments, but this did not affect the overall distribution since, as mentioned, other companies have increased disbursements and perfectly compensated for cuts in other sectors.
2. In Canada, where the pandemic had a more limited effect than in the United States, dividends were unaffected and rose 4.1% in underlying terms. Very few companies have cut or canceled their profit distribution programs, the largest being the company

Suncor Energy who did not make this decision due to the epidemic but due to problems of a different nature. In the Canadian context, banks have played a fundamental role, proving to be solid and reliable; the banking system has not succumbed to pressure from the authorities to cut dividends, as has happened in Europe, the United Kingdom and Australia, and most of them have even increased them.

5.2 Europe

Historically the second half of the year is the most important in Europe as 2/3 of the annual dividends are paid during this period, this is because most companies pay the dividend once a year in the spring (and not quarterly as in the United States).

54% of European companies reduced their distributions compared to the previous year, and 2/3 of these opted for cancellation. The need was felt to preserve the assets and liquidity of the companies to face the uncertain future, for this reason some companies had to suspend the payment of dividends by order of the authorities; this is the case of banks, which in many countries (France in particular) have had to renounce the provision of liquidity to shareholders. It is estimated that the banking sector alone accounts for 50% of the total decline compared to the previous year, while other companies were "forced" to cut dividends in order to access the concessions and loans provided by the state.

Overall dividends in Europe fell by 45%. In addition to banks, the sectors that contributed to making the data so negative are construction and transport, as well as the aerospace sector.

However, we must specify that the results vary greatly from country to country, even if it is worth to highlight great differences in the distributions of the various states, and for this reason it is necessary to analyze them separately. :

1. France is the first country in Europe for wealth distributed to shareholders in the form of dividends, in 2019 it represented 25% of the entire continent. In the aftermath of the pandemic, distributions went down for a 57% reaching a value of $ 13.3 billion. Much of this collapse (about 1/3) is attributable to banks, but industrial and consumer goods companies have also been hit hard. About 80% of French companies have decided to cut or completely cancel distributions.
2. Spain and Italy are also among the countries that have suffered the greatest consequences. The Iberian country suffered a 70% decline mainly due to the drop in the distribution of Inditex. Italy distributes around 6% of total European dividends, but in this quarter suffered a sharp decrease mainly driven by the cancellation of the Intesa Sanpaolo dividend, which caused more than 1/3 of the overall decline.
3. In the Netherlands, around 75% of companies have cut or canceled operations resulting in overall dividends falling by 53% .
4. Germany performed better than other European countries with a decrease of "only" 19% compared to the second quarter of 2019. Here there was no clear indication from the authorities to suspend dividends, but rather we witnessed to pressures of various kinds, unlike in other countries where in many cases distribution has been banned.

This allowed German companies to better withstand the impact. In particular, the insurance and banking sectors, apart from Deutsche Bank, did not opt for the dividend cut and kept the decrease within normal levels.

5. The UK recorded a 54.2% decrease in dividends due to Covid-19, with a disbursement of 15.6 billion dollars (in the second quarter of 2019 it was 34 billion). Only France and Spain reported worse results in Europe.
6. Finally, Switzerland deserves mention, second in Europe for the amount paid out each year in the form of dividends (16% of the total in 2019). The Swiss companies kept their distributions unchanged compared to the previous year, obtaining the best result of the whole old continent.

5.3 Asia Pacific, Japan and emerging countries

In the last decade, dividends in Asia have increased enormously with an increase of 124% and with the best performances recorded in South Korea and Taiwan. In the Pacific area, Australia, on which about 40% of the total supply of Asia depends, is the Country that has suffered the greatest impact of the coronavirus on the distribution of dividends. Important drops have also affected Singapore, South Korea where Hyundai has suspended all forms of payment and Hong Kong which has suffered the very severe crisis in the entertainment sector. The entire Pacific region saw dividend payments plummet by 11.8 percentage points in the second quarter of 2020, with about a third of the companies cutting or canceling dividends.

Japan deserves special mention as it is the fastest growing dividend region in the world, gaining 173% in ten years. This phenomenon is due to the willingness of Japanese companies to distribute an ever-higher percentage of wealth to shareholders. Covid-19 did not have a strong impact on Japanese companies thanks to the solid financial situation that characterizes them, in fact in the reference period 80% of them increased their dividends or kept them stable, causing an overall decrease of just 3.1% in real terms. We conclude our analysis with emerging markets even if it is very difficult to assess the impact of Covid-19 for these particular areas of the world. In the last 10 years the dividends of these areas have almost doubled, although the data relating to Russia and India must be considered with caution as they are considered quite "unpredictable". China is the leading country in terms of dividend payments among emerging markets with 29% of the total. Here, dividends are closely linked to corporate earnings and therefore vary significantly based on the general economic situation and market trends. The total dividends of emerging markets fell by 25% compared to the previous year,

but this value stands at 13% if we think in real terms (value adjusted for the value of the currency, extraordinary dividends, etc.).

We can conclude our analysis on the impact of Covid-19 on dividend payments by stating that if the first quarter of 2020 was not affected by the health emergency as it is still limited to a few areas of the world, the second quarter instead suffered the consequences both of the general stop of the economy and of the lack of confidence of investors and companies, which have found themselves catapulted into an unprecedented dramatic situation in which the lockdown and the collapse of global demand for goods and services have contributed to reducing profits corporate and with them the dividends paid by companies.

Global dividends have experienced an unprecedented vertical collapse as companies faced a liquidity deficit and wisely thought to intervene on the profit distribution policy rather than jeopardizing the financial stability of the company, which in many cases was however compromised. Doing so has gone against the classic theory according to which the management of a company should never modify the dividend distributions (except to increase them), rather intervening on other forms of expenditure such as the buy-backs of own shares. The events that occurred in the second quarter of 2020 did not invalidate this thesis as the situation we witnessed is of an exceptional nature, and precisely because of its enormous scale it was necessary to resort to large-scale dividend cuts and not act exclusively on buyback transactions.

2020 has been the worst year in terms of dividend payouts since at least the global financial crisis, with a less severe situation in the US than in Europe and Australia. The cause of this discrepancy is to be found in the huge amount of share buybacks that US companies have been doing for at least a decade. To cope with a period of economic and health crisis such as that caused by Covid-19, these companies have temporarily stopped all share repurchase programs to ensure greater availability of liquidity, and will not return to previous levels of buyback spending throughout 2020 and probably for the whole of 2021, ensuring flexibility that the companies of the old continent cannot exploit.

CONCLUSIONS

The object of study of this thesis was corporate governance in family and non-family businesses, specifically, attention was paid to two governance mechanisms used by businesses: on the one hand the management remuneration system and another is the dividend policy.

The management remuneration system is one of the forces, together with the managerial labor market, the market for goods and capital and internal control, capable of regulating the behavior of managers and aligning the interests of company managers with those of owners, or shareholders. Empirical evidence has demonstrated the incentive aspect of this tool through the pay-for-performance relationship, however remuneration policies can become an expropriation tool both in contexts with dispersed ownership structures and in contexts characterized by high ownership concentration, such as family businesses. Attention was paid to the relationship between ownership structure and CEO remuneration: the analyzes in the literature agree that as the ownership concentration increases, executive compensation decreases, testifying to the fact that in highly concentrated structures the effective monitoring by the shareholders replaces the remuneration system in the alignment of interests between shareholders and management. Furthermore, Barontini and Bozzi (2009) argue that executive compensation is higher in family businesses, especially in the presence of the founder on the board. This evidence supports the hypothesis of the expropriation of annuities by family members and confirms the centrality of the founder in the strategic choices of the company. Gomez-Mejia et al. (2003), in a study of family businesses, suggest that the total compensation is lower for “internal” CEOs, ie belonging to the family, compared to “external” CEOs, but their compensation package is much more isolated from risk; This is because internal CEOs are more interested in job security, being strongly linked to the family, while professional CEOs tend to have the greatest possible income as their main goal.

The dividend policy also plays an important role in trying to reduce agency costs that are generated due to the conflicting relationship between shareholders and management or between majority and minority shareholders. In any case, however, its effectiveness strongly depends both on the type of legal system within which the companies operate and on the ownership structure of the companies. Empirical evidence suggests that the presence of controlling shareholders favors a better *monitoring* action on management, thus reducing agency costs deriving from the risk of opportunism on the part of managers, therefore companies with concentrated shareholders make less use of the dividend policy than companies with widespread shareholding to mitigate agency costs. Hu et al. (2007) examine

the differences in payout policy between family and non-family businesses and find that the former on average have lower dividend payout ratios than the latter, supporting the fewer agency problems that characterize family businesses. An interesting study, which takes up the Lintner model, is that of Lau and Wu (2010): the authors examine the speed with which firms adjust their dividends towards the target payout ratio. This gradual adjustment process is referred to as “dividend smoothing”. The results of this study show that non-family businesses take 19 years to adjust their dividends to the target payout ratio while family businesses only spend 4 years on average; this evidence suggests that firms with greater agency problems, such as non-family ones, are more likely to keep their dividends constant.

Ultimately, we tried to understand the relationship between executive compensation and dividend policy through the study of a model based on the agency's theory. Bhattacharrya's model (2007) suggests that managers with a high level of productivity have access to far more investment opportunities with positive NPV and, consequently, invest much more in such investment projects, paying fewer dividends. Conversely, managers with low productivity have access to fewer investment opportunities and therefore distribute more profits in the form of dividends. Consequently, the dividend payout is negatively correlated with managerial productivity. In equilibrium, managers with higher productivity are paid more and, therefore, it follows that the dividend payout is negatively associated with managerial compensation. This model has been tested both in contexts characterized by dispersed shareholdings, such as Canada and the United States, and in contexts dominated by concentrated shareholdings, such as Germany and Italy, and the results appear in both cases to be consistent with the assumptions of this model.

In conclusion, it is necessary to underline the significant role of the top-management remuneration system and dividend policy in trying to mitigate agency problems and conflicts of interest within the company, however it should be remembered that other tools, such as the presence of institutional investors in the corporate shareholder structure, the legal system in force in the countries and the Board of Directors play an absolutely important role in aligning the interests between the players operating within the business context.

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