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Analysis of dividends policy as a tool for shareholders conflict management

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# Abstract

The aim of this project is to analyse the role of dividend policy as a tool to mitigate conflicts between majority and minority shareholders or whether it is used by majority shareholders to behave opportunistically towards minority shareholders and favour their expropriation in the context of Italian listed companies.

The study was conducted through an empirical analysis, in which several regressions were studied, to also test the robustness of the model, using a data sample of Italian non-financial listed companies in the years between 2000 and 2017.

After a careful theoretical excursus in which the main theoretical foundations regarding the relationship between majority and minority shareholders and regarding the models inherent to the dividend policy were reported, private firms of a family nature were considered for each regression, considering an individual or a set of individuals holding more than 50% as a family, according to a narrower definition, while according to a broader definition those holding more than 30% of shares.

Notably, all the regressions constructed led to the same result and, in addition, confirmed the nature of the relationships between the dependent variable, the percentage of dividends distributed relative to net income, and several independent variables selected for the study.

The main findings of the study suggest that majority shareholders use dividend policy to reduce conflict with minority shareholders rather than using dividend policy to behave opportunistically towards minority shareholders.

Furthermore, it was noted that the propensity of majority shareholders to distribute dividends has a negative relationship with return on equity and has a positive relationship with risk, company size, growth, corporate liquidity and market value.

# Resumen

El objetivo de este proyecto es analizar el papel de la política de dividendos como medio para mitigar los conflictos entre accionistas mayoritarios y minoritarios o si es utilizada por los accionistas mayoritarios para comportarse de forma oportunista con los minoritarios y favorecer su expropiación en el contexto de las empresas cotizadas italianas.

El estudio se llevó a cabo mediante un análisis empírico, en el que se estudiaron varias regresiones, para probar también la robustez del modelo, utilizando una muestra de datos de empresas italianas no financieras cotizadas en los años comprendidos entre 2000 y 2017.

Tras un cuidadoso excursus teórico en el que se han expuesto los principales fundamentos teóricos sobre la relación entre accionistas mayoritarios y minoritarios y sobre los modelos inherentes a la política de dividendos, se han considerado para cada regresión las empresas privadas de carácter familiar, considerando como familia a un individuo o conjunto de individuos que posean más del 50%, según una definición más estricta, mientras que según una definición más amplia a aquellos que posean más del 30% de las acciones.

En particular, todas las regresiones construidas condujeron al mismo resultado y, además, confirmaron la naturaleza de las relaciones entre la variable dependiente, el porcentaje de dividendos distribuidos en relación con los ingresos netos, y varias variables independientes seleccionadas para el estudio.

Las principales conclusiones del estudio sugieren que los accionistas mayoritarios utilizan la política de dividendos para reducir el conflicto con los accionistas

minoritarios en lugar de utilizar la política de dividendos para comportarse de forma oportunista con los accionistas minoritarios.

Además, se observó que la propensión de los accionistas mayoritarios a pagar dividendos tiene una relación negativa con la rentabilidad de los activos, y tiene una relación positiva con el riesgo, el tamaño de la empresa, el crecimiento, la liquidez corporativa y el valor de mercado.

# Introduction

The purpose of this project is to study, through an empirical analysis, the behaviour of majority shareholders towards minority shareholders, through the dividend policy; in particular, if the majority shareholders use dividend policy to behave opportunistically or to mitigate conflicts.

The conflict reduction model refers to a situation in which majority shareholders pay high dividends to build a relationship of trust with minority shareholders, thereby securing future investments on their part.

The opportunistic model, on the other hand, reflects the situation in which the majority shareholders, wanting to appropriate higher private benefits of control, reduce the share of dividends they distribute to minority shareholders.

The results in the literature are not univocal and the aim of the analysis is to see how Italian listed companies, instead, use the dividend policy.

La Porta et al. (2000),[1] suggest that in situations of high legal protection and low private benefits of control, dividends can reduce the conflict between majority and minority shareholders, because minority shareholders will be able to use their legal power to obtain more dividends, and the expropriation of controlling assets is more costly and risky in this context.

Faccio, Lang and Young (2001),[2] analyse the principal-principal agency problem around the world, referring, in particular, to the comparison between the regions

[1] La Porta & al. (2000). *Tunneling. American Economic Review, 90(2*), pp. 22-27

[2] Faccio & al (2001). *Dividends and Expropriation*. American Economic Review. *91(1),* pp 54-78

of East Asia and Western Europe, where ownership is predominantly of a family nature, with greater pronunciation in Europe.

They find in their study that family companies use dividend policy to expropriate minority shareholders, because dividends reduce free cash flows that could otherwise be expropriated and when their control is greater than their cash flow rights they tend to use the dividend policy to promote opportunistic behaviour.

Isakov and Weisskopf (2015), [3] analysing the influence of dividend policy on family businesses for Swiss from 2003 to 2010, they find that these family companies have a greater incentive to distribute dividends and in practice pay more dividends for reputational concerns.

Berzins et al. (2017),[4] in their study in private companies in Norway, they find a different result than the major ones found in the literature: the payout policy is used to mitigate the conflict and not to behave opportunistically on the part of majority shareholders towards minority shareholders.

Atmaja et al (2009),[5] analysing the role of dividend policy, debt and governance structure in family businesses in Australia, in a context where there is high protection of investments and high private benefits of control, they found that companies use the dividend policy to replace the role of independent directors and that, together with debts, companies manage to mitigate the principal-principal conflict, while in case of principal-agent conflict in non-family enterprises, it is the role of independent directors that is most effective.

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[3] Isakov and Weisskopf (2015*). Payout policies in founding family firms*. Journal of Corporate finance. 33, pp. 330-344

[4] Berzins & al. (2017). Shereholder conflicts and dividends. Review of Finance, Volume 22, Issue 5, August 2018, pp. 1807–1840.

[5] Atmaka & al. (2009). *The Role of Dividends, Debt and Board Structure in the Governance of Family Controlled Firms*. Journal of Business Finance and Accounting. 36(8). pp. 863-898

However, it is not only the principal-principal agency problem that influences the choice of distribution of dividends, in fact, there are also different variables that influence it, such as the need for liquidity, the need on the part of the majority shareholders to indicate the quality of their work through the payment of dividends, the level of protection of minority shareholders, but also the hedonism, or it is necessary to verify that the results are of a random nature or also, as Anderson and Reeb (2004) [6] highlight in their study, the presence of boards of directors that can monitor and limit the opportunistic behavior by families, in the case of predominantly family business.

The aim of the analysis will be to understand how the majority shareholders of Italian listed companies are positioned in this context, taking into account all the variables that could influence the results, but before that a theoretical basis will be provided on the main concepts that revolve around dividend policy and the principal-principal agency problem, the conflict that arises between majority and minority shareholders.

[6] Anderson & Reeb (2004). *Board Composition: Balancing Family Influence in S&P 500 Firms*. Adiminstrative Science Quarterly. 49(2), pp- 209-237

# Chapter 1
# Corporate Governance

This chapter analyses the concept of corporate governance in its broader and narrower definitions and identifies the principles provided by the Organisation for Economic Cooperation and Development, which all companies should adhere to for the purpose of ensuring an optimal level of corporate governance, with the ultimate objective of increasing the value of a company for shareholders, through transparent practices and ethical behaviour.

Thereafter, the different legal systems, common law and civil law, are analysed, with the aim of understanding which system guarantees greater protection of shareholders' rights and what the determining factors are.

In particular, a low concentration in ownership as well as good accounting standards, which are determining factors for more protection for shareholders, are more prevalent in countries with a common law system than those with a civil law system.

Following the analysis of the two legal systems, the financial systems are also analyzed to evaluate for a possible correlation with the protection of shareholders, with the emphasis on minority shareholders.

In detail, in a financial system based on the market rather than on the banking system and, therefore, does not have intermediaries, the protection of minority shareholders is stronger, and there is a correlation between the legal and banking systems: countries with a civil law system have poor accounting standards and are more oriented to an intermediary-based system, while the market-oriented

financial system is typically found in common law countries that have low levels of corruption, good accounting standards and more protection for shareholders.
Finally, a detailed analysis of the principal-to-principal conflict, between majority and minority shareholders, suggests that it mostly develops when there is a strong concentration or if the institution is weak.
This conflict has consequences (managerial talent, merger and acquisition, executive compensation and tunnelling or self-dealing), and it is the task of corporate governance to limit the consequences, through the synergy of external and internal mechanisms aimed at reducing the private benefits of control that majority shareholders can appropriate, and increase the efficiency of the company's performance.

## 1.1 The concept of Corporate Governance

This section discusses some of the definitions of corporate governance for an understanding of the concept. Despite significant interest from scientists, the concept of corporate governance does not have a universal definition; in fact, there are many definitions in the literature. Given that the main goal of corporate governance is to satisfy the interests of the stakeholders who interact with the company, the definitions are classified into two main groups. According to an article in the Financial Times in 1997 "*Corporate governance… is defined*

*narrowly as the relationship of a company with its shareholder or, more broadly as its relationship with society*"[7].

The first claim is narrow and more limited, as it only relates to the shareholders' interests, while the second one, which is broad, holds that the organs of corporate governance have to be accountable to any stakeholder or person with whom the company interacts.

Cadbury provided one of the simplest broad definitions and defines corporate governance as "*the system by which companies are directed and controlled*".[8]

Zingales formulated another broad definition, describing corporate governance as *"the complex set of constraints that shape the ex-post bargaining over the quasi rents generated by a firm",*[9] so, for a governance system, negotiations of quasi-rents are necessary in the relationship between the parties. In Zingales' opinion, by analysing the link between the distribution of the quasi-rents and how they are generated, can one determine who should control the firm. To prevent opportunistic behaviours, corporate governance introduces constraints to regulate discipline in the distribution of quasi-rents.

The Organisation for Economic Co-operation and Development (OECD) stated that "*Corporate governance involves a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the*

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[7] Financial Time. (1997). *Corporate Governance: Principles, Policies and Pratices*. (A. C. Fernando, Ed.). New Delhi: Pearson Education, p.14.

[8] Cadbury, A. (1992). *The financial aspects of corporate governance (Cadbury Report).* London, UK: The committee on the financial aspect of corporate governance (The Cadbury Committee) and Gee and Co. p.14

[9] Zingales, L. (1998). *Corporate Governance*, in Newman P. (Ed,), The new Palgrave dictionary of economics and growth, London: Palgrave Macmillan., p.4.

*objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined".*[10]

This definition highlights not only the relationships between the management, board, shareholders and stakeholders but also the fact that corporate governance should determine the way in which the objectives are achieved and, equally important, how to monitor the performance.

In addition, the OECD also defines the reason why good corporate governance is necessary, namely because *"good corporate governance will reassure shareholders and other stakeholders that their rights are protected and make it possible for corporations to decrease the cost of capital and to facilitate their access to the capital market"*[11].

Considering this definition, it is essential to build trust and ensure the protection of all stakeholders to obtain some advantages, such as a reduction in the cost of capital or to facilitate access to the capital market.

Sheifer and Vishny defined corporate governance by focusing on the shareholders' prospective, in order that "*corporate governance deals with the way in which suppliers of finance to corporations assure themselves of getting a return on their investment*"[12]

They consider corporate governance as the complex rules that are required to assure those who provide the financial resources of a return on their investment. Shleifer and Vishny followed Adam Smith's ideas, who wanted to solve the problem generated by the separation between ownership and management, and

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[10] OECD. (2015). *G20/ OECD Principles of Corporate Governance*. Paris: OECD Publishing, p.9
[11] OECD. (2015). *G20/ OECD Principles of Corporate Governance*. Paris: OECD Publishing, p.10
[12] Shleifer, & Vishny. (1997). *A survey of Corporate Governance*. The journal of finance, 52 (2), p.737.

they recall some of the lessons from Adam Smith: "*being the managers rather of other people's money than of their own, it cannot well be expected that they should watch over it with the same anxious vigilance with which the partners in a private copartnery frequently watch over their own.*"[13].

This problem occurs when managers rather than owners manage the company, and the managers simply do not put the same effort into it as the owners would. Shleifer and Vishny's definition assigns a mediating rule to the governance between financial services providers and managers.

The shareholders must be protected against possible adverse effects from conflicts of interest with the manager, who could behave opportunistically.

This definition is narrower than the previous one and takes into consideration problems that may arise from the relationship between the owners and managers.

Parkinson focused on the shareholders and defines corporate governance as "*the process of supervision and control… intended to ensure that the company's management acts in accordance with the interests of shareholders"*[14], so the objective of corporate governance is to monitor, supervise, all aimed at the satisfaction of the shareholders.

In brief, these definitions, both narrow and broad, hold that it is necessary for companies to interact with each other to ensure proper governance and, even if there is not only one definition of corporate governance, but there are also some common elements that can ensure optimal management of the relationships with

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[13] Smith, A. (1776). *An inquiry into the nature and causes of the wealth of nations*. London: T. Nelson and Sons (1852), Book 5, Chapter 1, Part 3, Article 1, p.311

[14] Parkinson, J. E. (1993). *Corporate Power and responsibility: issues in the theory of company law*. Oxford: Clarendon Press, p.159

the stakeholders, in broad definitions, and with the shareholders, in narrow definitions.

The OECD developed several principles that consider the common elements that companies should adopt for good corporate governance. Although there are many factors that affect governance, these principles were derived specifically from the separation between ownership and management, and they do not only consider problems between shareholders and managers but also problems between majority and minority shareholders, which are further reported on in this thesis. The principles are as follows.

1. Basis for an Effective Corporate Governance Framework

   *"The corporate governance framework should promote transparent and fair markets, and the efficient allocation of resources. It should be consistent with the rule of law and support effective supervision and enforcement."*[15]

   This principle highlights how companies should act to ensure the basis for an effective corporate governance framework. In particular, transparency and efficient allocation of resources are fundamental to establish the corporate governance framework in the best possible way.
   It is also important to consider the law, and all activities must comply with the laws and should be supervised, approved and adapted to changes for this purpose.

[15] OECD. (2015). *G20/ OECD Principles of Corporate Governance*. Paris: OECD Publishing, Principle I, p.13

Finally, supervisors have to make objective and transparent decisions rapidly.

2. The Rights of Shareholders

   *"The corporate governance framework should protect and facilitate the exercise of shareholders' rights and ensure the equitable treatment of all shareholders, including minority and foreign shareholders. All shareholders should have the opportunity to obtain effective redress for violation of their rights."*[16]

   This principle is of significant importance, especially for this thesis, because the purpose of the organization is also to guarantee fair treatment of all shareholders and to safeguard minority shareholders.

   From the above citation, it is clear that the rights of shareholders have to be important to the company, and it has to promote fair treatment, encourage shareholders to attend general meetings and provide clear and accurate information and advice.

   This principle emphasizes the protection of minority shareholders, in particular when the interests of majority shareholders differ from those of the minority, and abuse of a dominant position should be prevented. This could be a concerning situation in countries where minority shareholders are not sufficiently protected by the law or regulation.

[16] OECD. (2015). *G20/ OECD Principles of Corporate Governance*. Paris: OECD Publishing, Principle II, p.18

Even if possible abuse is not prohibited by law or regulations, these principles, however, call for respect for the minorities and consideration of the possible economic costs.

3. Institutional investors, stock markets, and other intermediaries

   *"The corporate governance framework should provide sound incentives throughout the investment chain and provide for stock markets to function in a way that contributes to good corporate governance."*[17]

   In accordance with the principle regarding institutional investors, stock markets and other intermediaries, a company has to ensure transparency regarding the institutional investors, relating to the exercising of voting rights in respect to financial instruments held and the proper management of conflicts of interest that may arise, because institutional investors can invest for themselves or for clients, so a conflict of interest could occur.

   With regard to the stock markets, this principle emphasizes the importance of the those, namely savers, operating in these markets, and the company has to protect them in the event of market failure.

4. The Role of Stakeholders

   *"The corporate governance framework should recognize the rights of stakeholders established by law or through mutual agreements and encourage active co-operation between corporations and stakeholders in*

[17] OECD. (2015). *G20/ OECD Principles of Corporate Governance*. Paris: OECD Publishing, Principle III, p.29

*creating wealth, jobs, and the sustainability of financially sound enterprises"*[18]

This principle relates to the recognition of the role of the stakeholders; companies should consider their trust and the resources they provide, and should manage to ensure a profitable company.
Companies have to support cooperation between corporations and stakeholders, since the success a company achieves is mainly as a result of teamwork to which everyone contributed.

5. Disclosure and Transparency
   *"The corporate governance framework should ensure that timely and accurate disclosure is made on all material matters regarding the corporation, including the financial situation, performance, ownership, and governance of the company."*[19]

   Companies have to ensure full disclosure and transparency.
   In fact, companies should be as transparent as possible and information provided must be timely, as specified in the first principle, to ensure an effective corporate governance framework.

[18] OECD. (2015). *G20/ OECD Principles of Corporate Governance*. Paris: OECD Publishing, Principle IV, p.34
[19] OECD. (2015). *G20/ OECD Principles of Corporate Governance*. Paris: OECD Publishing, Principle V, Paris, p.37

In particular, companies have to provide what is known as "*material information*",[20] the lack of which could influence certain economic decisions taken by stakeholders.

Furthermore, if a company is transparent, investors will have more protection since opacity in information could lead a company to behave unethically.

6. The Responsibilities of the Board

   *"The corporate governance framework should ensure the strategic guidance of the company, the effective monitoring of management by the board, and the board's accountability to the company and the shareholders."*[21]

   The responsibilities of the board are fundamental, namely, to monitor managerial performance; to ensure a high return on investment for the shareholders; to avoid conflicts of interest; to act in a way that guarantees their interests; to act objectively; and to be fully informed, careful and fair to all interested parties.

   This principle, therefore, establishes the duties of the Board to guarantee satisfaction and the correct treatment of all stakeholders.

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[20] OECD. (2015). G20/ OECD Principles of Corporate Governance. Paris: OECD Publishing, Principle VI, p.37

[21] OECD. (2015). *G20/ OECD Principles of Corporate Governance*. Paris: OECD Publishing, Principle VI, p.45

In conclusion, in accordance with the principles of good governance provided by the OECD, a company must manage and guarantee the interest of stakeholders and behave in an ethical and transparent way.

It is also important to consider that, in many cases, the shareholders' interests can differ, which can often cause several conflicts through the separation of ownership and management, but also by the difference in the shares held by the shareholders in a company, so between majority and minority shareholders.

## 1.2 Common law vs civil law[22]

In this section, it is to analyze how alternative law systems guarantee or do not guarantee shareholders' rights. Two different system are analyzed, civil law and common law.

The civil law system is inspired by the theoretical principles of Roman law, in which the main players were Napoleon and Bismarck.

This system is somewhat rigid when it comes to changing and adapting to new situations and changes, since it is resistant to changes in articles and laws.

The civil law system is mainly found in the countries in western Europe, but there are differences; in fact, there are three strains, namely, French (present in 21 countries, including Italy), written according to the 1807 guidelines of Napoleon; German (present in 6 countries), written in 1897 after Bismarck's unification of Germany; and, finally, Scandinavian origin (present in 4 countries).

[22] La Porta, R., & al. (1998). *Law and Finance*. Journal of Political Economy,*106(6*), pp.1113-1155.

Conversely, in the common law countries, judgements play an important role. Legal precedents determined by judges allow for modifications to the laws, as each situation that is solved becomes an example to imitate when something similar occurs. Consequently, it is easy to make major adjustments in business and negotiation conduct.

La Porta, Lopez-de-Silanes and Shleifer (1998)[23] investigated whether different law systems lead to different ownership and financial structures.

They collected and analysed data from 49 countries, considering the two different legal systems, common law and civil law, and used quantitative indices to measure the degree of legal protection for shareholders.

The authors considered four different rights, namely shareholder's rights, which is analysed in detail; creditor's rights; the respect for justice; and the degree of transparency in accounting standards in the different countries.

The authors had to mainly evaluate the shareholders' rights through the voting procedures as a reference, as shareholders exercise power with this tool by, for example, voting in favour of or against directors or corporate news.

They considered a number of different aspects relating to the voting procedures:

- *One share- One vote rule*

  With the one-share-one-vote rule, each share has the same payout fraction and the same voting right in general meetings, so one share corresponds one vote.

[23] La Porta, R., & al. (1998). *Law and Finance*. Journal of Political Economy,*106(6),* p. 1127

This rule is not mandatory and, in the paper, this measure was allocated a value of 1 if it is applied in a country or 0 if not.

The authors called the following rights "*anti-director rights*",[24] referring to rights that favour minorities over managers or controlling shareholders.
The five anti-directors rights are:

- *Proxy vote by mail allowed*

  This refers to the option for shareholders to vote by correspondence if it is specified in the company statute, thereby making voting more democratic

- *Shares not blocked before meeting*

  If there is no obligation to deposit shares a few days before the meeting, shareholders are not discouraged from participating

- *Cumulative voting/ Proportional representation*

  List voting is allowed, as representatives of minority shareholders, so that minorities can appoint a proportional number of directors to have their own representatives on the board of directors

- *Oppressed Minority*

[24] La Porta, R., & al. (1998). *Law and Finance*. Journal of Political Economy,*106(6*), p. 1113–1155.

Among these mechanisms are, for example, the right of withdrawal, the right of the company to buy back shares of minority shareholders in the event of opposition to fundamental decisions such as mergers or even the right to challenge the decisions taken by the directors in court

- *Preemptive right to new issues*
  This refers to the right or option to purchase new shares to avoid a dilution in shareholding in the event of a share capital increase

For each of these five anti-directors measures, a country will be allocated the value 1 if the minority shareholders are protected by the implementation of these measures or 0 otherwise, so a country could achieve a maximum of 5 points.

Another measure that was considered is the following:

- *Percentage of share capital to call an extraordinary shareholder meeting*
  The higher this value, the more difficult it will be for minority shareholders to organise meetings, for example for a change in management

The last measure considered in this study refers to:

- *Mandatory dividend*
  In some countries, this may be a form of protection for shareholders, as it could be a legal means of replacing the weak protection of minority shareholders.

The empirical evidence from this study lead to the following results:

- Legal systems count
  - Common law countries offer better shareholder protection with a rating of 4 out of 7
  - German civil law is not particularly protective, with a score of 2.33 out of 7
  - French civil law has the worst shareholder protection with a score of 2 out of 7
  - Scandinavian civil law countries are intermediate, with a score of 3 out of 7

- Mandatory dividends are used only in countries governed by French civil law

  The substitute mechanisms for poor investor protection are more prevalent in civil law countries, but they are saturated, according to the authors.

In the detailed results for Italy in this study, it scored only 1 point out of 7, and this was for an anti-director right, the pre-emptive right to new issues specified to 20% of the share capital. This suggests that there is little shareholder protection in Italy. The study was updated for Italy by Pagano e Volpin (2005)[25], after the

[25] Pagano, M., & Volpin, P. F. (2005). *The Political Economy of Corporate Governance*. American Economic Review, pp.1005-1030.

implementation of the Consolidated Law on Finance,[26] and the main results are as follows:

- The threshold of the percentage of share capital to call an extraordinary meeting was lowered from 20% to 10%;

- The anti-director rights were improved, which increased the score 1 to 5, because all the anti-director rights had been implemented;

- There is still no requirement for a one- share-one- vote voting structure.

According to the authors, another reason for poor investor protection is the concentration of ownership; countries with poor shareholder protection have a higher concentration in ownership, with more family-owned and state-owned companies, and the highest concentration in ownership was found in the countries with French civil law.

Furthermore, better accounting standards are linked to a lower concentration in ownership, which indicates that the concentration is really in response to poor investor protection.

In conclusion, common law countries have greater shareholder protection, which is also linked to ownership concentration and accounting standards; lower

[26] Consolidated Law on Finance, issued with Legislative Decree 58/1998 and entered into force on July 1, 1998, was drafted according to a community law of 1994, issued with Legislative Decree 52/1996, according to which a single text was to be issued to coordinate the laws that they governed the different areas of financial market law.

concentration and better accounting standards accompany strong investor protection.

## 1.3 Financial system and corporate governance

Financial systems and corporate governance have a close relationship; in fact, the financial system and control procedure are the building blocks of corporate governance.

In general, the financial system may be defined as a system in which there is an iteration between institutional units and the market, to mobilise the funds that finance commercial activity.[27]

There are two sources of financial capital, which has led to different financial systems and differing protection of minority shareholders, namely, the bank-based system and the market-based system.

These two instruments are analysed to understand whether the financial system affects the protection of minority shareholders.

In general, in the bank-based system, banks collect money from investors, pass it on to businesses through an intermediary function.

This kind of vision, therefore, considers the exploitation of economies of scale by banks to process information, improve moral hazard and, above all, mitigate information asymmetries.[28]

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[27] IMF. (2004). *Compilation Guide on Financal Soudness Indicators*. Washington DC: International Monetary Fund, paragraph 2.2.

[28] Levine, R. E. (2002). *Bank-Based or Market-Based Financial Systems*. Journal of Financial Intermediation, NBER Working Paper No. w9138, 11(4), pp.398-428.

The role of banks is to be an intermediary between those who own the funds, the savers, and those who need the funds, the borrowers.

Banks also play a positive role in the reputation of companies; by granting a loan to a company, banks indicate to the market that this is considered to be a reputable company, which increases its value.

There are, in general, three advantages to this type of system compared to the market, namely *long-term commitment*, *debt as governance structure* and *delegated monitoring*.[29]

Going more in detail:

1. *Long term commitment*

   In regard to the first advantage, the long-term commitment, Shleifer and Summers (1998)[30] and Mayer (1988)[31] claim that, in the event that there are situations that involve incomplete contracts, banks are able to reduce the moral risk between the actors involved, namely employees, managers and financiers, by creating long-term relationships between them.

2. *Debt as governance strucutre*

   The second advantage conceals the pros and cons, because the bank is a creditor to the company, its objective is not to maximise the shareholder's return, but to limit the probability of bankruptcy by limiting risk and, at

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[29] Grosfeld, I. (1994). *Comparing Finanacial System, Problems of Information and Control in Economies in Transition*. CASE Network Studies and Analysis n.26.

[30] Shleifer, A., & Lawrence, S. (1988). B*reach of trust in hostile takeovers*. Corporate Takeovers: Causes and Consequences., edited by Alan J Auerbach. Chicago: University of Chicago Press, pp.33-56.

[31] Mayer, C. (1988). *New issues in corporate finance*. European Economic Review, 32(5), pp.1167-1183.

the same time, acting prudently in uncertain situations, such as choosing to not invest in risky projects.

A conflict of interest arises between the objective of the banks and that of the shareholders; the shareholders will want to maximize the return on capital, while the banks want to minimize losses.

Williamson (1988)[32], in fact, recognizes that debt is a structure that works according to rules, so it is suitable for projects in which the resources are reusable, while the use of equity is more favourable for projects in which the resources are less redistributable.

3. *Delegated monitoring*

Finally, banks, due to their economies of scale in monitoring and gathering information, obtain less expensive information than the market and are aware of the health of a company or have information on the sectors, while the market has to repeat the monitoring, which can be expensive. Through this screening and monitoring activity, banks manage to reduce the agency cost, which is discussed later.

Banks, therefore, reduce adverse selection through ex-ante screening and moral risk through ex-post monitoring.

Another mechanism that reduces the cost of bank financing is the *relationship banking*[33], which allows the company to obtain financing at lower costs, based on the reputation of the company, through the

[32] Williamson, O. (1988). *Corporate finance and corporate governance*. The Journal of Finance, 43(3), pp.567-591.
[33] Boot, A. (2000). *Relationship Banking: What do we know?.* Journal of Financial Intermediation, 9(1), pp.7-25.

investment of the bank to obtain specific customer information, through proprietary information, and through multiple interactions, with the same customer to assess profitability.

Although there are several advantages to this type of financial system, there are also some disadvantages that can be summarised as follows.

1. *Attitude too cautious*

   With these types of systems, banks want to limit risks and may behave too cautiously, sometimes also by limiting interest in more risky and innovative projects.

2. *Collusion and inefficiency of corporate governance*

   Banks may present situations as between powerful banks and company managers against other creditors, could make corporate governance inefficient.[34]

The market-based system, on the contrary, is a system in which the enterprise sells both bonds and shares without any intermediary, so it is a direct exchange of financial resources between those who save the funds and those who receive them.

[34] Beck, T. (2003). *Stock markets, banks, and economic development: Theory and evidence*. Lucembourg: European Investment Bank, 8(1), pp.37-54.

The supporters of this system believe it can overcome the inefficiencies caused by the other system, such as the possible collusion of powerful banks with the managers of companies against other creditors, as mentioned above.

In the market system, conflicts of interest between shareholders and management may occur when there are opposing interests. In addition, the manager has significant discretion because they have information that others do not have, thus creating the so-called agency problem.

The system is considered to be effective if it is possible for shareholders to replace the manager if his work is not satisfactory. The market judges the behaviour of the manager through the pricing, and, therefore, makes a takeover possible if the quotation is low, signalling distrust towards the managers. This means that it is the market that regulates the relationship between shareholders and management. Typical elements of the market-based system are found in Anglo-Saxon countries, where common law provides an optimal degree of protection for minority shareholders and social creditors.[35]

In both cases, maximizing a company's value for stakeholders remains vital.

Kunt and Levince (1999),[36] studied the impact of the financial system with a sample of 150 countries to demonstrate how financial systems change from country to country and to analyse their efficiency.

The study highlights the following important considerations:

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[35] Kunt, A. D., & Levine, R. (1999). *Bank-based and market-based financial system- cross-country comparisons*. Washington, D.C: World Bank Group.

[36] Kunt, A. D., & Levine, R. (1999). Bank-based and market-based financial system- cross-country comparisons. Washington, D.C: World Bank Group.

- The richer a country is, the more the efficient financial systems are, so the development of the financial system is related to the growth in income.

- In very rich countries, however, the market-based system is more efficient than the bank-based systems.

- Common law countries, with strong shareholder protection, low levels of corruption and good accounting standards, are more oriented towards a market system.

- The countries with civil law and poor accounting standards, are more oriented towards a system based on intermediaries.

According to the last two points, it is more likely that the common law countries will have a financial system based on the market, while those with civil law lean towards the banking system, as reported in the article "*Common Law countries are more likely to have market-based financial systems than countries with other legal origins. Underdeveloped financial systems are more likely to have French Civil Law legal systems than other legal origins*."[37]

Moreover, by shifting the focus towards the protection of minority shareholders in their study, they found that minority shareholders are better protected in

[37] Kunt, A. D., & Levine, R. (1999). Bank-based and market-based financial system- cross-country comparisons. Washington, D.C: World Bank Group, p.25

financial systems that do not rely on intermediaries, therefore, in market-based systems.

In fact: "*countries with legal codes that rigorously protect the rights of minority shareholders tend to have market-based financial systems. Countries with legal codes that stress the rights of creditors and shareholders are much less likely to have underdeveloped financial systems".*[38]

## 1.4 Agency theory

Conflicts of interest between insiders, such as managers or majority shareholders, and outsiders, such as minority shareholders, can be described through the agency issue. Two types of agency problems are described in the literature, but only the second one is analysed in detail:

1. Principal- agent conflict

   The principal-agent problem occurs mainly in companies characterized by the separation of ownership and control, where owners cannot manage the entire company and delegate competent people, or managers, to do so.

   The principal-agent relationship arises when the principal, who is risk-neutral, causes the agent, who is, conversely, risk-averse, to act.

   The theoretical reasons for this problem derive from imperfect monitoring. The principal does not observe the action, only the result,

[38] Kunt, A. D., & Levine, R. (1999). Bank-based and market-based financial system- cross-country comparisons. Washington, D.C: World Bank Group, p.27

which is determined in part by the action of the agent and in part by the case, which generates problems of information asymmetry. This results in the problem of *adverse selection*, referring to hidden information before the contract so that the principal cannot verify the conditions that the agent claims to have, and a *moral hazard*, where a post-contract asymmetry is generated, and the agent could pursue his own interests at the expense of those of the principal.

For this reason, the principal has to be able to offer the agent a contract that considers information asymmetries, in both the pre-contractual and post-contractual phases and, since the agent is risk-averse, the principal must remunerate him by considering two constraints, namely the participation constraint, in which the principal must offer a reserve utility fee equal to the best alternative to persuade the agent to accept the contract, and the constraint of incentives, which means offering a variable share, based on his effort.

Divergence of interests between the principal and the agent generates "*agency costs*[39], which are costs linked to the willingness to align the two entities and their utility functions, through monitoring or contractual solutions.

2. Principal- principal conflict

   The literature has dealt less with this problem than the previous one, and it concerns a second agency conflict created between majority

[39] Jensen, M. C., & Meckling, W. H. (1976). *Theory of the firm: Managerial behavior, agency costs and ownership strucutre*. Journal of Finanacial Economics, 3(4), pp.305-360.

shareholders, who row against and attempt to expropriate minority shareholders, and minority shareholders. Since majority shareholders have control, they could use their voting rights to control the company, for example, by selecting directors or management.

This problem cannot be solved with the same solution as the principal-agent problem, that is, through the alignment of incentives and monitoring systems, so these assumptions are irrelevant in this specific case.

The principal-principal problem is more prevalent in companies where there is greater concentration of ownership and control, and it can be linked to an internal governance mechanism but also to external governance mechanisms, such as little legal protection.[40]

In fact, a high concentration of ownership corresponds to low protection of minority shareholders, since the controlling shareholders attempt to own more and more capital shares and voting rights to be able to exert an absolute influence on the control of the undertaking, thereby seeking to not only own the company but also to control it.

High concentration in ownership refers to a system in which ownership is concentrated in the hands of one or a few controlling shareholders who can use their power to make decisions, which means that the controlling shareholder is in a position to make the final decision, and this gives them an advantage over the minority shareholders if the institution is unable to defend them.

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[40] Globerman , S., Peng, M. W., & Shapiro, D. (2011). *Corporate governance and asian companies. Asia Pacific Journal of Management*, 28(1), pp.1-14.

This problem is more prevalent in countries where minority shareholders have less legal protection, hence in civil law countries.

Controlling shareholders have an incentive to extract the monetary benefits of control, which are "*tangible and intangible benefits from firm control that are not shared with other shareholders*"[41] .

Tangible benefits are those involved in a transfer of resources, and intangible benefits do not involve a transfer of resources.

The private benefits of control may or may not be aligned with the interests of the company and might harm minority shareholders through legal or illegal actions.

The consequences of this problem can affect four areas, namely managerial talent, mergers and acquisitions, executive compensation and tunnelling or self-dealing.[42]

### 1.4.1 Consequences of Principal- Principal problem

As mentioned in the previous paragraph, the consequences of the principal-principal conflict can affect four areas:

1. Managerial talent

[41] Peng, M. W., & Sauerwals, S. (2013). Corporate governance and principal-principal conflicts. In D. S. Douglas Michael Wright, *The Oxford Handbook of Corporate Governance* (p. 659). Oxford: Oxford university press.

[42] Peng, M. W., & Sauerwals, S. (2013). Corporate governance and principal-principal conflicts. In D. S. Douglas Michael Wright, The Oxford Handbook of Corporate Governance (pp. 658-672). Oxford: Oxford university press.

The private benefits of control may not only be tangible but also intangible. Although these benefits do not affect the tangible resources of the enterprise, they are nevertheless able to influence its value. For example, through non-meritocratic hiring, such as nepotism, in which high compensation is offered to unqualified relatives, a company can be damaged. The lack of investment in managerial talent creates conflict between majority and minority shareholders, as the latter will not benefit from intangible resources, as they cannot access them and, in addition, corporate performance will decline.

2. Mergers and acquisition

   When the majority shareholders have shares in both the acquirer and the acquiree company, they derive an overall advantage from the merger. This includes, for example, transactions with related parties and entering into an agreement prior to the transaction, such as imposing unfavourable prices to expropriate minority shareholders. These actions create conflict between the two parties and put minority shareholders at a disadvantage.

3. Executive compensation

   Even the remuneration of managers is an important issue. In fact, the manager could demand excessive compensation, using the tangible resources of the company.

4. Tunnelling or self-dealing.

The problem of expropriation by controlling shareholders to the detriment of minority shareholders is also known as *tunneling* o *self-dealing*[43].

Tunnelling refers to the channelling of profits that favours the company in which the shareholder has a larger shareholding through, for example, the transfer of profits to a subsidiary with underselling and overpriced purchases. These dynamics can create conflict between majority and minority shareholders.

To reduce the opportunistic behaviour of majority shareholders, private control of self-dealing is essential to reduce the risk of expropriation of minority shareholders and the cost of capital.[44]

To reduce the private benefits of control and, thus, limit the conflict between controlling and minority shareholders, internal and external governance mechanisms should be introduced, limiting all transactions that disadvantage minority shareholders and allow opportunistic behaviour in majority shareholders. There are two mechanisms:

- External mechanisms

  Principal-principal conflicts are mainly caused by external mechanisms that do not guarantee the protection of minority shareholders, such as protection through laws or regulations, which can lead to majority

[43] Djankov, S., La Porta, R., Lopez de Silanes, F., & Shleifer, A. (2008). *The Law and Economics of Self-Dealing*. Journal of financial economics, 88(3), pp.430-465.

[44] Liu, M., & Magnan, M. (2011). *Self-Dealing Regulations, Ownership Wedgem and corporate valuation: International Evidence*. Corporate Governance: An international Review, 19(2), pp.99-115.

shareholders engaging in opportunistic behaviour that disadvantage minority shareholders.

For example, the institution could introduce the obligation of the *one share- one vote rule*[45] to reduce power in the hands of majority shareholders.

- Internal mechanisms

  Internal mechanisms are also important because, when external mechanisms do not work perfectly, the internal mechanisms have to be activated. The presence of multiple block holders, for example, could be a mechanism to ensure that takeover is facilitated and to act against the majority shareholders when required, to reduce their power.

In conclusion, when an institution is weak or corporate ownership is too concentrated, conflicts of interest arise between majority and minority shareholders.

These conflicts can cause inefficiencies in the corporate governance structure in four main areas, namely, managerial talent, mergers and acquisitions, management compensation and tunnelling or self-dealing. It can be overcome by the introduction of good corporate governance and internal and external protection to improve the efficiency of business performance and reduce the private control benefits that majority shareholders appropriate.

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[45] Grossman, S. J., & Hart, O. (1988). *One share-one vote and the market for corporate control*. Journal financil economics, pp.175-202.

# Chapter 2
# Minority shareholder protection

This chapter analyses the protection of minority shareholders, including a study of the main tools used to ensure greater protection. First the legal protection is discussed, followed by disclosure transparency or the way in which transactions between related parties are regulated. Finally, the instruments that majority shareholders use to expropriate minority shareholders, such as crossholdings, shareholder's agreements, pyramid groups and voting structure, are discussed.

## 2.1 Protection for minorities in Italy

This section analyses the rules that have been introduced in Italy to ensure the protection of minority shareholders.

One of the largest contributions to the protection of minorities in Italy was the approval of the single text of the provisions on financial intermediation, also known as the Consolidated Law on Finance, legislative decree number 58 of 24 February 1998. This act contains a section on the protection of minority shareholders, particularly in articles 125 to 134, some of which have been repealed over the years, and the latest amendments are in the Law 178 of 30/12/2020 and the Legislative Decree 17 of 2/2/2021.

In particular, the most important rules introduced to protect minorities are as follows:

- Lowering of the share capital threshold for the convocation of the general meeting[46]

  The quorum for the request to convene a meeting was reduced to 10% of the share capital in Article 125 of the Consolidated Law on Finance [47], instead of the 20% required by Article 2367 of the Italian Civil Code.

  Lowering this threshold makes it easier for minorities to convene a meeting.

- Lowering of the threshold of share capital for convocation after the first convocations[48]

  The deliberative quorums for the first two convocations are established by Articles 2368 and 2369 of the Italian Civil Code.

  In addition, the constitutive quorum for an extraordinary shareholders' meeting was reduced to 20% at the third convocation, according to Article 126, paragraph 3 of the Consolidated Law on Finance,[49] and the deliberative quorum to two thirds of the share capital in paragraph.

[46] Consolidated Law on Finance. (1998), part IV "regulation of issuers", title III "issuers", chapter II "listed companies", section II "shareholder rights", art. 125 "Calling of shareholders' meetings at the request of minority shareholders (repealed)"

[47] Article repealed by Article 9 of Legislative Decree No. 37 of 6/2/2004 and integrated with Articles 2367 of the Civil Code.

[48] Consolidated Law on Finance. (1998), part IV "regulation of issuers", title III "issuers", chapter II "listed companies", section II "shareholder rights", art. 126 "Notice of second and subsequent calls"

[49] These latter provisions were repealed by Article 9 of Legislative Decree No. 37 of 6/2/2004 and integrated into Articles 2368 and 2369 of the Civil Code.

- Liability shares with 5% of the share capital without a prior shareholders' meeting[50]

  According to Article 129 of the Consolidated Law on Finance,[51] liability action against directors, statutory auditors and general managers is enforceable by a group of members who hold at least 5% of the share capital, who have been registered in the shareholders' register for at least 6 months, whereas, before this law was passed, this could only be done by deliberation of the ordinary assembly.

- Reduction of the quorum from 5% to 2% for denunciation of facts liable to be censured[52]

  Article 128 of the Consolidated Law on Finance,[53] reduced the required share capital, so that minority shareholders can exercise these rights more easily.

- Reduction of the quorum from 10% to 5% for reporting irregularities against auditors and directors to the court[54]

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[50] Consolidated Law on Finance. (1998), part IV "regulation of issuers", title III "issuers", chapter II "listed companies", section II "shareholder rights", art. 129 "Company actions for liability (repealed)"
[51] Article repealed by Article 9 of Legislative Decree No. 37 of 6/2/2004 and integrated with Articles 2393 bis of the Italian Civil Code.
[52] Consolidated Law on Finance. (1998), part IV "regulation of issuers", title III "issuers", chapter II "listed companies", section II "shareholder rights", art. 128 "Complaints to the board of auditors and the courts (repealed)"
[53] Article repealed by Article 9 of Legislative Decree No. 37 of 6/2/2004 and integrated with Articles 2408 and 2409 of the Italian Civil Code.
[54] Consolidated Law on Finance. (1998), part IV "regulation of issuers", title III "issuers", chapter II "listed companies", section II "shareholder rights", art. 128 "Complaints to the board of auditors and the courts (repealed)"

Article 128 of the Consolidated Law on Finance,[55] reduced the requirement for being able to report irregularities to the court from 10% to 5% of the share capital.

- Recognition of the right of withdrawal[56]

  According to the Article 131 of the Consolidated Law on Finance,[57] the right of withdrawal, with the average price of the last 6 months, is recognized for dissenting shareholders in the event of divisions, mergers, change of voting structure and change of corporate objective. This provides a measure of protection for shareholders.

- Presence of at least one minority member on the board of statutory auditors[58]

  According to Article 148 of the Consolidated Law on Finance, it is required that at least one minority member is on the board of auditors.

- If provided for in the statute, is possible and there are simplifications in solicitations and collections of proxies[59]

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[55] Article repealed by Article 9 of Legislative Decree No. 37 of 6/2/2004 and integrated with Articles 2408 and 2409 of the Italian Civil Code

[56] Consolidated Law on Finance. (1998), part IV "regulation of issuers", title III "issuers", chapter II "listed companies", section II "shareholder rights", art. 131 "Right of withdrawal from mergers and spin-offs (repealed)"

[57] Article repealed by Article 9 of Legislative Decree No. 37 of 6/2/2004 and integrated with Articles 2437-quinquies of the Italian Civil Code

[58] Consolidated Law on Finance. (1998), part IV "regulation of issuers", title III "issuers", chapter II "listed companies", section V "internal control bodies", art. 148 "Composition"

[59] Consolidated Law on Finance. (1998), part IV "regulation of issuers", title III "issuers", chapter II "listed companies", section II "shareholder rights", art. 127 "Postal or electronic voting"

In addition, according to Article 127 of the Consolidated Law on Finance, for companies where it is allowed in the statute, there is the possibility of voting by correspondence, which promotes equity democracy.

Finally, the articles of association provide for the simplification of procedures for soliciting and collecting proxy votes.

These rules were introduced with the aim of attaining more inclusion of minority shareholders and to obtain more active participation, because only corporate governance with external and internal disciplinary mechanisms is required, but this is not sufficient to prevent the expropriation of minority shareholders.

### 2.1.1 Corporate reporting

Company information becomes of fundamental importance for the protection of shareholders; in fact, the law obliges companies to inform shareholders regarding shares and changes and to provide financial statements for shorter periods, with the aim of acquainting everyone with the ultimate owner of the enterprise.
In addition, the corporate information allows the identification of shareholders with an interest in excess of 3%, or 5% in the case of small and medium-sized enterprises. According to Article 120 of the Consolidated Law on Finance,[60]

[60] Consolidated Law on Finance. (1998), part IV "regulation of issuers", title III "issuers", part IV "regulation of issuers", section I "ownership structures", art. 120 "Notification requirements for major holdings"

companies are obliged to communicate to Consob and the investee company those (natural persons, companies or entities) participating in a company with listed shares in excess of 3% of the share capital, and 5% in the case of small and medium-sized enterprises.

The communication group leader, also called ultimate owner, or the person at the head of the chain of command.

This discipline stems from the desire to achieve greater transparency in information to protect the efficiency of the market, so that all investors can make informed decisions.

## 2.2 Related parties' transaction

Another instrument for the protection of minorities is the regulation of transactions with related parties.

A related party transaction is "*a transfer of resources, services or obligations between a reporting entity and a related party, regardless of whether a consideration has been agreed*."[61]

Related parties include, for example, those who are part of one of these groups:

- Related companies

- Subsidiaries that hold an equity investment or exercise control directly or indirectly through intermediaries

[61] IAS 24 (2021), "Financial reporting on related parties", international accounting standard no. 24, paragraph 9b, l 186/5.

- Joint ventures in which a company is associated

- Management staff with strategic responsibility, insiders and family members of the insiders.

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Transactions with related parties must be explicit and communicated to avoid transfers of non-monetary benefits through the following routes:

- Purchase or sale of goods, activities or services

- Leasing contracts and guarantees

- Payment of liabilities in the name or account of another party

Transactions with related parties are, in fact, one of the most frequent ways used for tunnelling.

The IAS 24 suggests that not only the legal form but also the substance of these reports should be studied to avoid the above-mentioned problems .

Since 2010, all these transactions have to be approved by the independent director committee or, in its absence, at the shareholders' meeting. In fact, for Consob, these situations have become the subject of legislation, control and transparency, to inform the public regarding the operation and that it may conflict with the interests of minority shareholders.

Finally, the most important transacion must also be accompanied by an information document within seven days of approval[62].

## 2.3 Tools for separation between ownership and control

When a shareholder is in the hands of a few owners, the agency costs related to the principal-agent problem are less significant but arise those that are costs between majority and minority shareholders, since the latter may be expropriated from the right to control the undertaking through instruments used by majority shareholders.

The instruments that separate ownership from control can have some negative outcomes, such as tunnelling and the subsequent expropriation of minority shareholders.

The main instruments used by majority shareholders for the expropriation of minority shareholders are crossholdings, shareholders' agreements, pyramid groups and voting structure.

### 2.3.1 Crossholdings

Crossholdings[63] refer the situation in which one company is part of another and vice versa.

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[62] Regulation n. 17221/2010 amended by resolution 21624/2020, article 6 "*Transactions with related parties and communications to the public*"

[63] Consolidated Law on Finance. (1998), part IV "regulation of issuers", title III "issuers", chapter II "listed companies", section I "Ownership structure", art. 121 "Rules governing cross-holdings" and 122 "Shareholders' agreements"

Articles 120 and 121 of Consolidated Law on Finance regulate stock crossings with a limit of 3% between companies, a maximum limit of 5% in the case of small and medium-sized enterprises and 10% in the case of an agreement previously authorized at the ordinary shareholders' meeting. This is because, on the one hand, cross-shareholding hinders the contestability of control and prevents takeovers, and, on the other hand, it removes control and decision making from small shareholders, directing these into the hands of the majority shareholders.

### 2.3.2 Shareholders' agreements

Shareholders' agreements64 also known as trade union agreements, are agreements that allow a few shareholders with small but significant shares compared to minority shareholders to strengthen their control and to control a decision on an undertaking.

In fact, some shareholders who control companies conclude contracts that are different from the social ones but linked to company contracts, and, therefore, these are known as shareholders' agreements.

These agreements are contracts that bind some or all the partners to a certain conduct or regulate certain profiles relating to their participation in the company. To understand the importance of shareholders' agreements and why the need for these agreements often arise, it is essential to understand the nature of the company contract. The Articles of Association and, more generally, the company

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[64] Consolidated Law on Finance. (1998), part IV "regulation of issuers", title III "issuers", chapter II "listed companies", section I "Ownership structure", art. 122 "Shareholders' agreements"and 123 "Duration of agreements and right of withdrawal"

contract, regulate the life, operation, final phase and, to some extent, the dissolution of a company.

Companies are contracts on an organizational nature, because they enable an organization to operate on the market and, therefore, to maintain relations with third parties. Unlike a normal contract, for example, a contract of sale, the company contract is not only in effect between two parties but also toward third parties.

The shareholders' agreements are not part of the organizational social contract; they are contracts that, according to the normal rules of private law, affect only the parties who conclude the pact. Parties who join a shareholders' agreement are called third parties to the agreement.

The shareholders' agreement, unlike the company contract or articles of association, only has a mandatory effect inter partes, between the third parties to the agreement. These shareholders' agreements are often concluded between all or some of the members who are then bound to certain behaviours.

The purpose of the third parties to the agreement with the conclusion of a shareholders' agreement is to stabilise control of the company, or rather the ownership structure and the government of society.

These agreements in listed companies are governed by the Consolidated Law on Finance, and Article 122 provides that these agreements must be communicated to Consob "*agreements regarding the exercise of voting rights in companies with listed shares and their parent companies, within five days of stipulation shall be*

*communicate to CONSOB*"[65] and the duration may not exceed three years, in accordance with Article 123.

The agreements are instruments that separate control from ownership and facilitate the expropriation of minority shareholders; in fact, case law considers them to be possibly dangerous because they can create abuses.

In the Consolidated Law on Finance different types of unions are specified:

- *"create obligations of consultation prior to the exercise of voting rights in companies with listed shares or companies that control them";*[66]

- *"set limits onthe transfer of the related shares or of financial instruments that entitle holders to buy or subscribe for them";*[67]

- *" provide for the purchase of shares or financial instruments";*[68]

- *" have as their object or effect the exercise, jointly or otherwise, of a dominant influence on such companies";*[69]

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[65] Consolidated Law on Finance. (1998), part IV "regulation of issuers", title III "issuers", chapter II "listed companies", section I "Ownership structure", art. 122 n.1 "Shareholders' agreements"

[66] Consolidated Law on Finance. (1998), part IV "regulation of issuers", title III "issuers", chapter II "listed companies", section I "Ownership structure", art. 122 n.1 "Shareholders' agreements",5.a

[67] Consolidated Law on Finance. (1998), part IV "regulation of issuers", title III "issuers", chapter II "listed companies", section I "Ownership structure", art. 122 n.1 "Shareholders' agreements" 5.b

[68] Consolidated Law on Finance. (1998), part IV "regulation of issuers", title III "issuers", chapter II "listed companies", section I "Ownership structure", art. 122 n.1 "Shareholders' agreements" 5.c

[69] Consolidated Law on Finance. (1998), part IV "regulation of issuers", title III "issuers", chapter II "listed companies", section I "Ownership structure", art. 122 n.1 "Shareholders' agreements", 5.d

- *“ which aim to encourage or frustrate a takeover bid or exchange tender offering, including commitments relating to non-participation in a takeover bid”.*[70]

In non-listed companies, there are different types of shareholders' agreements, as indicated in Articles 2341-bis and -ter of the Italian civil code [71]:

- Voting unions

  The third parties to the agreement can be engaged or may consult before the assembly in which they exercise the right to vote, so the voting union’s agreements establish obligations on prior consultation voting.

  If someone violates the shareholders’ agreement, their vote at the general meeting remains valid, but the person remained in breach of the shareholders agreement, so, if this failure results in damage, they will be liable to compensation because the shareholders’ agreement is only effective inter partes.

- Block trade unions

  These unions set limits on the transfer of shares, so that even control cannot be transferred.

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[70] Consolidated Law on Finance. (1998), part IV “regulation of issuers”, title III “issuers”, chapter II “listed companies”, section I “Ownership structure”, art. 122 n.1 “Shareholders' agreements” 5.d-bis

[71] Article 2341 bis and ter of Italian Civil Code

- Control unions

  In these agreements, several parties with smaller holdings agree to exert a dominant influence on the company.

The shareholders' agreements have a tendential function of stabilization of the property and government structures.

It is possible for administrators to plan and implement medium-to-long-term policies, but, at the same time, there are drawbacks. A first and fundamental disadvantage is that of limiting the contendibility of the society, that is also when the resources affluite in society and invested in societies are poorly employed by the administrators, the company is managed inefficiently and the stabilisation of control makes it impossible to replace inefficient management with more efficient managers. These are disadvantages for both the minority shareholders and for the entire economic system.

### 2.3.3 Pyramid group

Pyramidal groups are mixed groups based on a notion of control, with a holding or parent company that directly controls the sub-holdings, which, in turn, control the different operating companies. Holding companies issue strategic directives and sub-holding companies translate the strategic directives into operational ones that are implemented by the directors of the individual companies in the group.

In fact, a pyramid group consists of a company at the top of the pyramid that controls several companies, which, in turn, control other companies.

The pyramid, therefore, allows a company to govern an enterprise with a moderate equity investment in the company at the top of the group.

The separation mechanism between ownership and control can make it difficult to contend with the market, and therefore, it removes from the market the transfer of control, reserving benefits for only a few shareholders, limiting takeover and facilitating tunnelling, such as through companies that belong to the same group and that want to expropriate minority shareholders.

This instrument, however, is also governed by the institutional framework to ensure that the rights of minority shareholders are protected.

In addition, the EC (2003) recommended that companies in abusive pyramidal structures should not be listed, in particular "*It recommended that national authorities should be required not to admit to listing companies belonging to abusive pyramids. The Group defined them as holding companies whose sole or main assets are their shareholding in another listed company*".[72]

In addition, the Italian stock exchange limits the listing of investment companies through specific requirements for diversification of financial investments and the limitation of expropriations to the same issuer.

### 2.3.4 Voting structure

The structure of voting rights is developed when a company is founded, as that is when the statute is created. There are two types of voting structures, namely, one-share-one-vote, in which all shares receive the same fraction of the dividend and have the same voting rights at general meetings, and dual class shares, where there are class A and class B shares, or a class of share with multiple voting rights

[72] Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty.

and a class of share that does not have the right to vote or only has limited voting rights, but all the shares receive the same fraction of the dividend.

One of the tools that makes transfer of control less efficient is the dual class share voting structure, which generates separation of ownership and control.

The dual class share, unlike the one-share-one-vote structure, in which all the shares have the same right to voting and wealth, allows the incumbents so many votes that it is impossible to transfer control without their consent.

Therefore, the goal is, for example, to maintain family control, where the family obtains high private value by refusing a change of control from the market, including compensatory arrangements such as the gold parachute.

Conversely, the one-share-one-vote rule corrects the incentives of the owner, who has invested extensively and will be interested in making capital for themselves and for the shareholders. He does so with a share of ownership proportionate to that of control by avoiding the exchange incentive going in the direction of maximizing non-monetary benefits. There is a proper allocation of control that balances ownership and control by straightening incentives of the one who commands, while deviation generates inefficiency.

Grossman and Hart (1988),[73] compared the two voting structures to understand which is the optimal structure, and, in most cases, it is the one share-one-vote rule.

It emerges from their study that, with the one-share-one-vote structure, there is a greater possibility of replacing an ineffective manager with an effective one, so that the management of an enterprise will be a position to generate greater value.

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[73] Grossman, S. J., & Hart, O. (1988). *One share-one vote and the market for corporate control*. Journal financil economics, pp.175-202.

In fact, if those in control are disciplined today and tomorrow, the value of securities in circulation will be quite high and the company, consequently, will be more profitable and valuable.

In conclusion, their model shows that the voting structure influences the outcome of a potential climb and that the optimal structure to favour a change in management is to have only one class of shares with equal voting rights and dividends. Therefore, the one-share-one-vote rule regulates those who want control, in fact the offer becomes more expensive.

# Chapter 3
# Italian Context

In this section, the main tools of separation between ownership and control used in Italy and in the reality of Italian companies, listed and unlisted, are analysed. The ownership structure of these companies and its evolution over time is first analysed, using the data in the annual reports on corporate governance provided by Consob for the listed companies.

Bianchi and Bianco (2006),[74] analysed Italian corporate governance from 1990 to 2005, starting with the main separation tools used by companies, to understand their evolution.

In particular, the two authors analysed the data by dividing the study in two parts. The first part focuses on unlisted companies and the second one on the listed companies.

In more detail, the Bianchi and Bianco study (2006)[75] was used as a source for unlisted and listed companies for the years 1990 to 2005.

For the following years, since there are few sources for non-listed companies regarding the evolution of corporate governance and, in particular, the methods used to protect minority shareholders, a study by Baltrunaite, Brodi and Mocetti (2019)[76] was used as a source, and, in addition also the study by Abrardi and

[74] Bianchi, M. & Bianco, M. (2006). *Italian corporate governance in the last 15 years: from pyramids to coalitions?*.Finance Working paper n. 144
[75] *Ibidem*
[76] Baltrunaite A. & Al (2019). *Ownership and governance structures of Italian companies: new evidence and effects on business performance*. Bank of Italy Occasional paper.

Rondi (2021)[77] was used to confirm the results, while for the listed companies, the analysis provided by Consob[78] and Abrardi and Rondi(2020),[79] were referenced.

The analysis resulted in a critique of the evolution of Italian corporate governance, which has failed to change its structure in terms of concentration.

In particular, most unlisted Italian companies, which are mainly concentrated in the Central and Southern Italy, are characterized by a prevalence of stable family businesses, with negative contextual phenomena such as poor management of justice, high potential for tax erosion and low levels of education.

If, on the one hand, this difficulty has not been overcome, on the other hand, for listed companies, the increased competitiveness and market pressure generated by the entry of international investors and the new regulations in favour of investors have led to a departure from instruments that tend to create a separation between ownership and control. However, even for these types of companies, high concentration remains in place.

## 3.1 The main ownership structures

Before analysing the evolution of corporate governance in listed and unlisted companies, it is necessary to take a step back by investigating the possible ownership structures.

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[77] Abrardi, L., & Rondi, L. (2021). Ownership and control after 25 years of corporate governance reforms: the case of Italy. Turin: Politecnico di Torino. (unpublished manuscript).

[78] CONSOB (2020). "*Report on corporate governance of Italian listed companies*"

[79] Abrardi, L., & Rondi, L. (2020). *Ownership and performance in the Italian stock exchange: the puzzle of family firms*. Journal of Industrial and Business Economics

As seen in the previous chapters, for a high level of protection for minority shareholders, it is necessary that internal and external mechanisms of governance coexist and that legislation must ensure good protection, but the degree of concentration also plays an important role.
Three main ownership structures can be classified with consideration of the degree of concentration.

- Closely held firm

  A closely held firm is a company in which only a few individuals hold ownership, so there is a degree of concentration, and, as private companies, they are not listed on the stock exchange.

  In fact, if a shareholder intends to sell their shares, they have to sell to one of the other shareholders.

  Hostile acquisitions by companies or external bodies are difficult because there is strong control in these companies as a result of the limited number of shares, and a few shareholders have high decision-making power and can make business decisions according to their will.

  Generally, shareholders who hold a large number of shares tend to hold them for long periods, so new investors have little chance of obtaining enough shares for control. In conclusion, in this type of company it is difficult to have contendibility of control.

- Widely held firm

  These companies are represented by a widespread shareholding among many small shareholders, so there is no controlling shareholder and control is entrusted to top management. In this structure, the separation

between ownership and control is high, often generating conflicts of interest between the manager and the shareholders of the company.

- Family firm

  There is no single definition in the literature for a family firm, but, in general, a family firm is a company that is controlled by an individual, who is usually the founder, or/and his family.

  For example, Berzins et Al. (2017)[80] use two different definitions of family, a wide and a narrower definition.

  In the wide definition, they include individuals related by blood or marriage up to the fourth degree of kinship, while in the narrower definition, they consider only parents and underage children, so the nuclear family.

## 3.2 Governance evolution in unlisted companies

Starting with non-listed companies, where the concentration of control is high and the enterprise is often controlled by a single individual, the principal tool used to achieve greater control is a high concentration of ownership, so the owner structure.

[80] Berzins & al. (2017). Shereholder conflicts and dividends. Review of Finance, Volume 22, Issue 5, August 2018, pp. 1807–1840.

According to the data provided by the Bank of Italy in the Bianchi and Bianco study (2006)[81], with a sample of at least 50 employees, the ownership structure showed a high concentration, with a stable trend over the years.

In particular, on average, the concentration increased from approximately 66% in 1993 to 66.9% in 2005, related to the share of the largest shareholders, while the share of the second and third largest shareholders decreased from approximately 27% in 1993 to 25% in 2005, showing a stable trend over time, with an average of three shareholders, as showed in Table 1. [82]

*Table 1:Ownership concentration. Non listed Italian firm.*

| | 1993 | 2003 | 2005 |
|---|---|---|---|
| Largest shareholder (average) | 66.0 | 67.0 | 66.9 |
| $2^{nd}$+$3^{rd}$ largest shareholders (average) | 27.0 | 24.6 | 25.0 |
| N. of shareholders (median) | | 3 | 3 |

*Source: 0-1Bianchi and Bianco (2006). Italian corporate governance in the last 15 years: from pyramids to coalitions?*

As mentioned above, there are other tools to strengthen or replace the majority of the shares in addition to the high concentration of ownership, and an example of the most common one, especially in Italy, is pyramid groups.

[81] Bianchi, M. & Bianco, M. (2006). Italian corporate governance in the last 15 years: from pyramids to coalitions?.Finance Working paper n. 144

[82] Bianchi, M. & Bianco, M. (2006). *Italian corporate governance in the last 15 years: from pyramids to coalitions?*.Finance Working paper n. 144. Table 1- Ownership concentration. Non listed Italian firms

When a company is part of a group, the concentration of ownership is usually high, which is the reason why the larger companies often have larger concentrations of ownership.

In fact, despite the fact that 56% of unlisted companies belonged to pyramidal groups in 1993, in recent years, unlisted companies have sought to use this instrument less, reducing the percentage to 45.8% in 2005, as showed in Table 2.[83]

*Table 2:Control instruments (% of firms)*

| | 1993 | 2003 | 2005 |
|---|---|---|---|
| Pyramidal group | 56.5 | 44.0 | 45.8 |
| Shareholders' agreement | | 9.1 | 10.1 |
| Clauses in by-laws that limit the transferability of shares | | 42.0 | 46.1 |

*Source: 0-2 Bianchi and Bianco (2006). Italian corporate governance in the last 15 years: from pyramids to coalitions?*

Another instrument that enables maintaining control without the need for a majority of actions is coalition through, for example, shareholders' agreements, whose rules can determine how control is exercised.

Coalitions can be formed through formal covenants, such as shareholders' agreements, that have acquired greater protection and are recognized after the 2004 company law reform, or through informal covenants, such as trust or reputation.

[83] Bianchi, M. & Bianco, M. (2006). *Italian corporate governance in the last 15 years: from pyramids to coalitions?*.Finance Working paper n. 144. Table 3- Control instruments

It has recently been noted that the frequency of shareholders' agreements has increased significantly, from 9.1% in 2003 to 10.1% in 2005, although there is little data in the studies, so it is not known whether or not their use increased before 2003[84], as showed in figure 2.

The main results from the studies are as follows:

- The frequency of shareholders' agreements increased from 9.1% in 2003 to 10.1% in 2005, as showed in figure 2.

- The smaller the share of the largest shareholder and the larger the company, the greater the presence of the pyramidal groups.

- The pyramidal groups are less common when the largest shareholder is an individual

- The pyramidal groups reduce concentration in larger companies.

The third and last instrument designed to maintain control is the introduction of clauses in the articles of association that limit the transfer of shares, ensuring that shareholders involved in an agreement cannot sell their shares without the consent of others, and the following are related to this aspect:

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[84] *Ibidem*

- The dissemination of the instrument of clauses has increased, from 42% in 2003 to 46.1% in 2005, since the reform of company law made it possible to include clauses that were previously in the shareholders' agreements in the statute[85], as showed in figure 2.

- The smaller the share of the largest shareholders, the more frequent to clauses become

- The use of clauses is not significantly related to the vote of the second or third controlling shareholders

- Clauses are less common in companies controlled by foreign agents or financial corporations

- Clauses reduce the concentration.

In conclusion, unlike the initial years of the study, there has not been a major change in governance structure, but different tools are being used to gain control. This has led to a move away from instruments such as pyramidal groups and the adoption of other alternatives, such as shareholders' agreements or covenants. Previous analyses of ownership structures revealed a high concentration of control and a significant spread in family businesses, leading to low economic

[85] *Ibidem*

growth, but, in recent years, a study by Baltrunaite et al(2019)[86] showed different results, due to the regulatory changes and changes in the ownership structure and governance of companies.

The researchers decided to analyse the performance of corporate governance from 2005 to 2016 through the data collected from Infocamere and, for companies with share capital, the balance sheet data was obtained from the Cerved base.

Moreover, since there is no single definition of family business in the literature, this study observed first-level partners and surnames and did not consider relationships, thus underestimating the total number of family businesses.

In addition, enterprises in which the largest share of the share capital is owned by a family were defined as non-family enterprises.

According to the results from the study, certain characteristics were identified for the years that were studied, namely little separation between ownership and control and high concentration and prevalence of family control, generating a system that is not dynamic in terms of economic growth, with a greater diffusion of family businesses in the south-central part of Italy.

The prevalence of family businesses has always been a problem, and this is often reinforced by various territorial invoices, such as level of indebtedness, degree of trust, operation of justice and intensity of evasion.

To verify these assumptions, the researchers analysed the correlations with context factors, using variables such as leverage, as this indicator can provide information on levels of indebtedness and whether or not it is easy to obtain external financing instead of raising capital within the family; it indicates the

[86] Baltrunaite A. & Al (2019). Ownership and governance structures of Italian companies: new evidence and effects on business performance. Bank of Italy Occasional paper.

degree of the operation of justice, because, in the event of a low degree of justice function, there may be a reluctance to undertake external negotiations, and, therefore, informal relations are preferred and there is degree of trust towards others.

There are positive aspects to continuing with this structure, such as the sharing of interests, which would lead to a reduction in agency costs, However, there may also be disadvantages that could lead to a decrease in the value of the holding, for example, through the transfer of control to a family member rather than to talented person, for the sole purpose of maintaining the family relationship.

In addition, the idea of retaining the company in the long term to allow for the succession of relatives could be a constraint to the development of innovative investments that might be risky.

Eventually, the authors found that these enterprises are characterized by a level of indebtedness, a low degree of confidence, a worse functioning of justice than in other cities where this corporate structure and a greater intensity of evasion does not prevail, which suggests that, when there is an inefficient social and institutional environment, family businesses are more likely to develop.

In addition, these businesses are characterized by lower turnover growth, labour productivity and investment rate, with a lower probability of an exit from the market. The low levels of education, lack of managerial practices and reduced introduction of new technologies lead to lower productivity in family businesses. In addition, these effects are amplified in the largest companies operating in the manufacturing sector, which are the most competitive and mostly located in the centre-north.

In conclusion, the main results of the analysis of the evolution of corporate governance during recent years, with particular reference to corporations, have

shown a prevalence and persistence of family businesses, a high concentration of property and a contained separation between property and control, all generated by poor context phenomena.

In situations where markets are open to competition and certain managerial skills are required, the negative effects of family ownership are amplified.

In addition, Abrardi and Rondi (2021),[87] confirmed the results from the analysis of the evolution of corporate governance structure from 1993 to 2016, using a study from Bianchi and Bianco (2006)[88] for the period from 1993 to 2005, and one from Baltrunaite et al. (2019),[89] to analyse the remaining period up to 2016. In particular, a comparison of the periods 1993, 2005 and 2016 were done, and the main results were as follows:

- The average concentration of the largest shareholder and the second and third largest shareholders remained quite stable over the years, ranging from 66%, 66.9% to 66% respectively in 1993, 2005 and 2016 for the largest shareholder, and from 27% in 1993, to 25% in 2005 and 2016, as showed in table 3.

[87] Abrardi, L., & Rondi, L. (2021). Ownership and control after 25 years of corporate governance reforms: the case of Italy. Turin: Politecnico di Torino. (unpublished manuscript).
[88] Bianchi, M. & Bianco, M. (2006). Italian corporate governance in the last 15 years: from pyramids to coalitions?.Finance Working paper n. 144.
[89] Baltrunaite A. & Al (2019). Ownership and governance structures of Italian companies: new evidence and effects on business performance. Bank of Italy Occasional paper.

*Table 3:Ownership concentration of Italian non-listed companies in 1993, 2005 and 2016.*

| | 1993 | 2005 | 2016 |
|---|---|---|---|
| Largest Shareholder (average) | 66.0 | 66.9 | 66.0 |
| 2nd and 3rd largest shareholders | 27.0 | 25.0 | 25.0 |

*Source: 0-3 Abrardi, L., & Rondi, L. (2020). Ownership and control after 25 years of corporate governance reforms: the case of Italy. Turin: Politecnico di Torino. (unpublished manuscript).*

- The control agents of companies changed between 1993 to 2016. In particular, in 1993, individuals and families were the predominant form of control agents, with 50.9% and 20.8%, and they remained dominant in 2005 and 2016.

  In 2005, 84.6% of companies were controlled by an individual, holding or private non-financial enterprise, while, in 1993, this figure was 85.3%, thus marking a stable trend of concentration between the two periods. The main differences are in the foreign and state-owned companies, since, between 1993 to 2005, the number of foreign-owned companies increased, while the number of state-owned companies declined, due to the privatisation process that occurred during the 1990s, and different financial companies of banks have increased.

  In 2016, however, something changed since the owner was introduced as "the coalition", in which the majority shareholder cannot be identified and, recalling that the category "family" underestimated the incidence of family businesses because only the closest relatives were considered and family groups were not included in situations where

several members of the family have a share of the company, as showed in table 4.

*Table 4: Type of ownership in non-listed companies in 1993, 2005 and 2016*

| | 1993 | 2005 | 2016 | |
|---|---|---|---|---|
| Individual | 50.9 | 51.0 | Family | 36 |
| Holding | 20.8 | 24.6 | Coalition | 20 |
| Private non-financial | 13.6 | 9.0 | Private non-financial | 34 |
| State | 6.9 | 0.7 | State | 3 |
| Foreign company | 7.8 | 12.3 | | |
| Bank and other financial | 0 | 2.01 | Bank and other financial | 7 |

*Source: 0-4 Abrardi, L., & Rondi, L. (2020). Ownership and control after 25 years of corporate governance reforms: the case of Italy. Turin: Politecnico di Torino. (unpublished manuscript).*

## 3.3 Governance evolution in listed companies

The same analysis was also performed for listed companies, and the authors added a further instrument, the voting structure. For this analysis, the authors considered the ownership structure of the listed companies and also of what they call "*listed group*"[90], which is a set of companies that may or may not be listed and are linked by a *" control relationship to the listed company, i.e. those that control or are controlled by the listed company itself "*[91].

[90] Bianchi, M. & Bianco, M. (2006). Italian corporate governance in the last 15 years: from pyramids to coalitions?.Finance Working paper n. 144, p.6
[91] Bianchi, M. & Bianco, M. (2006). Italian corporate governance in the last 15 years: from pyramids to coalitions?.Finance Working paper n. 144, p.6

In addition, some group companies may not be related to the listed one and the number of listed groups is not necessarily equal to the number of listed companies, as the groups may include more listed companies.
In particular, the authors analysed the variation in the number of listed companies and groups in the years 1992, 1998 and 2001.
The results of this analysis can be summarized as follows:

- The average number of listed companies has remained more or less the same over the years, while the number of groups has increased considerably, as showed in table 5.[92]

*Table 5:Structure of listed groups.*

| | 1992 | 1998 | 2001 |
|---|---|---|---|
| n. groups | 147 | 164 | 227 |
| average n. of firms per group | 44.6 | 45.9 | 33.0 |
| average n. of employees per group | 7160 | 5537 | 3571 |
| total n. of Italian firms | 4159 | 3518 | 3257 |
| total n. of foreign firms | 2391 | 4004 | 4225 |
| Total n. of firms | 6550 | 7522 | 7482 |

*Source: 0-5:: Bianchi, M. & Bianco, M. (2006). Italian corporate governance in the last 15 years: from pyramids to coalitions?.Finance Working paper n. 144*

[92] Bianchi, M. & Bianco, M. (2006). Italian corporate governance in the last 15 years: from pyramids to coalitions?.Finance Working paper n. 144. Table 3: Structure of listed groups.

- The average number of companies and employees in the group have also decreased over the years, which shows that the listed groups have become smaller

- The shift of industrial groups from more competitive sectors, such as manufacturing, to less competitive sectors, such as services or public utilities, has, together with the internalization of groups, led to a reduction in the share of the Italian stock market compared to the national economy.

The lengthy reform process during those years, such as the privatisation programme and external changes, did not lead to stock market growth as expected but, however, led to the evolution of the governance structure, which have become more market-oriented and, therefore, have less concentrated structures. Indeed, regarding the issue of corporate governance, a comparison of the most current results with older results revealed that, although companies were initially characterized by a rather high concentration and the use of pyramidal structures, this trend has changed over the years:

- Control concentration has decreased
- Less extensive use of pyramids as a means of separating property from control
- Increased presence of subsidiaries through the coalition instrument, in some cases reinforced by cross-ownership and interconnected directions.

In their study, the authors found a clear distinction between results obtained for banks and for non-financial corporations:

- The ownership structure of the banks appears to be more concentrated, mainly due to the important role of the state
- Privatization has led to a dispersion in the ownership of banks, but there is a stable concentration in non-financial companies, while newer companies are less concentrated.

Finally, an investigation of the data up to 2005 provided the following results:

- A reduction in the number presence of non-financial corporations
- A reduction in the complexity and importance of pyramidal groups
- A reduced role for the state
- Growth in the role of foreign companies
- Growth in the role of individuals

As previously discussed, companies may use different tools to separate ownership and control. In the case of listed companies, the main tools are voting structure, pyramids and coalitions.

Starting with pyramidal groups, the evaluation of data up to 2005 highlighted a reduced number of non-financial corporations, followed by a reduction in the importance of pyramidal groups, which led to the dilution of ownership and less separation.

In addition, the character of these groups has also changed, because their objective at the start of the 1990s was to expand economic activity due to their opaque structure that allowed private benefits to be expropriated through intra-group transactions and internal restructuring after. However, after 2005, the structure seems to be simpler, towards more concentrated assets, mainly due to

market pressure, and it has also become possible for international investors to enter the Italian financial market, thus reducing the use of tools for the separation of ownership and control, particularly the pyramid group. Therefore, the reduction in the use of these instruments is due to greater competition in the market.

The data from the latest Consob report (2020)[93] seem to confirm this decreasing trend; in fact, in 1998, approximately 56% of companies were not part of a pyramid group, and, by 2019, this percentage was 84.2%,[94] as showed in table 6.

*Table 6:Corporate groups in Italian listed companies*

| | horizontal group | pyramidal group | | | mixed group | | | | stand-alone companies |
|---|---|---|---|---|---|---|---|---|---|
| | | | *of which: parent company* | *subsidiary* | | *of which: parent company* | *subsidiary* | *horizontal structure* | |
| **number of companies[1]** | | | | | | | | | |
| **1998** | 5.1 | 36.1 | *13.4* | *22.7* | 2.8 | *0.5* | *1.9* | *0.5* | 56.0 |
| **2010** | 4.4 | 15.6 | *6.7* | *8.9* | 4.4 | *1.1* | *1.9* | *1.5* | 75.6 |
| **2011** | 5.4 | 16.2 | *6.5* | *9.6* | 4.6 | *1.2* | *1.9* | *1.5* | 73.8 |
| **2012** | 3.2 | 17.1 | *6.8* | *10.4* | 4.4 | *1.2* | *2.0* | *1.2* | 75.3 |
| **2013** | 3.3 | 15.2 | *6.1* | *9.0* | 6.1 | *2.0* | *2.5* | *1.6* | 75.4 |
| **2014** | 3.4 | 14.7 | *6.7* | *8.0* | 6.3 | *1.7* | *2.5* | *2.1* | 75.6 |
| **2015** | 0.9 | 13.7 | *6.4* | *7.3* | 6.4 | *1.7* | *2.6* | *2.1* | 79.1 |
| **2016** | 0.9 | 13.0 | *6.1* | *7.0* | 5.2 | *1.3* | *2.2* | *1.7* | 80.9 |
| **2017** | -- | 12.1 | *5.6* | *6.5* | 6.5 | *1.7* | *2.6* | *2.2* | 81.4 |
| **2018** | 2.2 | 12.1 | *5.6* | *6.5* | 4.8 | *1.3* | *2.2* | *1.3* | 81.0 |
| **2019** | 2.2 | 11.0 | *4.8* | *6.1* | 2.6 | *0.9* | *0.9* | *0.9* | 84.2 |
| **market capitalisation[2]** | | | | | | | | | |
| **1998** | 6.1 | 75.0 | *50.9* | *24.1* | 3.2 | *2.5* | *0.5* | *0.2* | 15.6 |
| **2010** | 2.1 | 43.4 | *29.6* | *13.8* | 15.8 | *10.9* | *2.4* | *2.4* | 38.7 |
| **2011** | 1.8 | 51.6 | *37.6* | *14.0* | 17.1 | *11.6* | *3.0* | *2.4* | 29.6 |
| **2012** | 1.5 | 60.1 | *44.3* | *15.8* | 4.5 | *3.2* | *0.5* | *0.7* | 33.9 |
| **2013** | 1.5 | 33.3 | *26.1* | *7.2* | 25.8 | *19.6* | *2.3* | *3.9* | 39.5 |
| **2014** | 1.5 | 43.2 | *36.9* | *6.3* | 22.5 | *16.9* | *1.5* | *4.1* | 32.8 |
| **2015** | .. | 40.6 | *33.8* | *6.8* | 19.5 | *14.5* | *1.2* | *3.8* | 39.9 |
| **2016** | 0.1 | 38.6 | *33.4* | *5.2* | 6.5 | *5.2* | *0.6* | *0.6* | 54.8 |
| **2017** | -- | 36.9 | *32.4* | *4.5* | 7.8 | *5.3* | *1.6* | *0.8* | 55.3 |
| **2018** | 0.8 | 36.0 | *31.6* | *4.4* | 5.9 | *3.9* | *1.5* | *0.5* | 57.3 |
| **2019** | 0.7 | 28.5 | *25.4* | *3.1* | 5.8 | *3.9* | *1.4* | *0.6* | 64.9 |

*Source: 0-6 CONSOB (2020). Report on corporate governance of Italian listed companies*

[93] CONSOB (2020). *"Report on corporate governance of Italian listed companies"*
[94] CONSOB (2020). *"Report on corporate governance of Italian listed companies"*. Tab 1.13 -Corporate groups in Italian listed companies, p.19

In addition, in 1998, only 5.1% of companies were part of a horizontal group, and, by 2019, this percentage had decreased to 2.2%,[95] as showed in figure 4. The average number of companies that are part of these groups has also decreased from 3.3 in 1998 to 2.5 in 2019, marking the departure from this instrument for the separation of ownership and control,[96] as showed in Table 7.

*Table 7:Separation between ownership and control in Italian listed companies belonging to pyramidal or mixed groups*

| | companies belonging to pyramidal or mixed groups | | | leverage[1] | | | wedge[2] | | |
|---|---|---|---|---|---|---|---|---|---|
| | mean | min | max | mean | min | max | mean | min | max |
| **1998** | 3.3 | 2.0 | 6.0 | 3.5 | 1.0 | 24.7 | 24.2 | 0.0 | 70.8 |
| **2010** | 2.9 | 2.0 | 5.0 | 1.9 | 1.0 | 6.5 | 16.8 | 0.0 | 65.7 |
| **2011** | 3.1 | 2.0 | 5.0 | 2.2 | 1.0 | 11.6 | 17.1 | 0.0 | 65.7 |
| **2012** | 3.1 | 2.0 | 5.0 | 2.3 | 1.0 | 13.0 | 17.9 | 0.0 | 65.7 |
| **2013** | 3.1 | 2.0 | 5.0 | 2.3 | 1.0 | 15.1 | 16.9 | 0.0 | 65.7 |
| **2014** | 2.9 | 2.0 | 5.0 | 1.8 | 1.0 | 6.8 | 15.9 | 0.0 | 66.3 |
| **2015** | 2.8 | 2.0 | 5.0 | 1.6 | 1.0 | 4.2 | 12.8 | 0.0 | 51.5 |
| **2016** | 2.8 | 2.0 | 5.0 | 1.7 | 1.0 | 5.8 | 13.6 | 0.0 | 49.7 |
| **2017** | 2.9 | 2.0 | 5.0 | 1.6 | 1.0 | 5.8 | 12.3 | 0.0 | 56.7 |
| **2018** | 2.7 | 2.0 | 5.0 | 1.6 | 1.0 | 4.5 | 12.7 | 0.0 | 61.7 |
| **2019** | 2.5 | 2.0 | 4.0 | 1.6 | 1.0 | 4.5 | 12.9 | 0.0 | 61.7 |

*Source: 0-7 CONSOB (2020). Report on corporate governance of Italian listed companies*

In conclusion, the evolution over the years in increased competitive pressure on the market by international investors and the increased protection for shareholders has led to a decrease in the private benefits of control, and has rendered these structures less attractive, drastically reducing their use. The

[95] CONSOB (2020). *"Report on corporate governance of Italian listed companies"*. Tab 1.13 -Corporate groups in Italian listed companies, p.19
[96] CONSOB (2020). *"Report on corporate governance of Italian listed companies"*. Tab 1.14- Separation between ownership and control in Italian listed companies belonging to pyramidal or mixed groups, p.20

coalition between investors can be initiated through shareholders' agreements, through formal or informal procedures, or based on trust and reputation.
In their study, Bianchi and Bianco (2006)[97] classified different types of coalitions, according to the subjects, the shareholders, who form them:

- Listed companies, where they can identify the ultimate control players
- Cooperatives, which are mainly represented by banks
- Natural persons as family members
- Natural persons and agents, such as financial and non-financial corporations.

An analysis of the data from 1990 to 2005 showed the authors of the study that coalitions have increased significantly, both trade union pacts and informal coalitions. The number of companies controlled by coalitions has increased over the years from 10.9% in 1990 to 34.5% in 2005,[98] as showed in table 8.

*Table 8:Listed companies controlled by coalitions (by coalitions type, %)*

| | N. companies | | | Capitalization | | |
|---|---|---|---|---|---|---|
| | 1990 | 2001 | 2005 | 1990 | 2001 | 2005 |
| Coalition of listed companies | 2.5 | 4.3 | 5.1 | 16.8 | 20.8 | 30.6 |
| Cooperatives | - | 4.0 | 3.1 | - | 2.3 | 3.8 |
| Family coalition | 6.3 | 15.9 | 17.6 | 1.1 | 3.3 | 3.8 |
| Family coalition with other members | 2.1 | 5.1 | 8.6 | 1.2 | 1.3 | 8.6 |
| Total | 10.9 | 29.3 | 34.4 | 19.1 | 27.6 | 46.8 |

*Source: 0-8: Bianchi, M. & Bianco, M. (2006). Italian corporate governance in the last 15 years: from pyramids to coalitions?.Finance Working paper n. 144*

[97] Bianchi, M. & Bianco, M. (2006). *Italian corporate governance in the last 15 years: from pyramids to coalitions?*.Finance Working paper n. 144
[98] Bianchi, M. & Bianco, M. (2006). *Italian corporate governance in the last 15 years: from pyramids to coalitions?*.Finance Working paper n. 144. Table 16- Listed companies controlled by coalitions (by coalitions type, %)

In terms of market capitalization, however, there has been an increase in informal coalitions, but a slight decrease in shareholders' agreements between 1990 to 2005.

During 2005, moreover, banks played a more significant role than non-financial private companies, and more than half of the banks were controlled by coalitions, approximately 62.5%, with 88.5% capitalization, while only 32.3% of private non-financial corporations were controlled by coalitions, with 35.4% capitalization,[99] as showed in table 9.

*Table 9:Listed companies controlled by coalitions (by coalition type, by sector, %, 2005)*

| | Banks | | Private non financial | |
|---|---|---|---|---|
| | N. companies | Capitalization | N. companies | Capitalization |
| Coalition of listed companies | 18.8 | 55.6 | 2.1 | 19.9 |
| Cooperatives | 21.9 | 10.8 | - | - |
| Family coalition | 3.1 | 1.9 | 22.1 | 8.8 |
| Family coalition with other members | 18.8 | 20.4 | 8.2 | 6.7 |
| **Total** | **62.5** | **88.5** | **32.3** | **35.4** |

*Source: 0-9:Bianchi, M. & Bianco, M. (2006). Italian corporate governance in the last 15 years: from pyramids to coalitions?.Finance Working paper n. 144*

In general, the analysis of the data up to 2005 revealed that:

- The coalition is the most widely used tool in recently listed companies, since 1992

[99] Bianchi, M. & Bianco, M. (2006). *Italian corporate governance in the last 15 years: from pyramids to coalitions?*.Finance Working paper n. 144. Table 17- Listed companies controlled by coalitions (by coalition type, by sector, %, 2005)

- Listed companies have reduced concentration over the past 15 years through increased the use of shareholders' agreements

In non-financial corporations, the following was found:

- There is less concentration of ownership or the use of pyramids to gain control, probably, for example, because of the internalization of capital markets or the aversion of international investors to pyramid groups, and they are more likely to adopt coalition instruments, such as shareholders' agreements
- They tend to go public less often

In the case of banks, however, the following was found:

- In recent years, coalitions have become stronger
- They tend to go public more often as a result of privatization

A detailed analysis of the data provided by Consob revealed that the evolution of the number of pacts in Italian listed companies has led to an inverse trend; in 1998, 28 companies were controlled by pacts, and this went up to 57 in 2009. From 2010 to 2019, this number decreased from 51 to 24, with a weight of 5.9% on market capitalization,[100] as showed in table 10.

[100] CONSOB (2020). *"Report on corporate governance of Italian listed companies"*. Tab 1.2- Control model of Italian listed companies, p.13

*Table 10:Control model of Italian listed companies,*

| | controlled companies | | | | | | non-controlled companies | | | | | | total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | majority controlled[1] | | weakly controlled[2] | | controlled by a shareholders' agreement[3] | | cooperative companies | | widely held[4] | | non-widely held[5] | | | |
| | no. | %market cap[6] | no. | %market cap[6] | no. | %market cap[6] | no. | %market cap[6] | no. | %market cap[6] | no. | %market cap[6] | no. | % market cap[6] |
| **1998** | 122 | *31.2* | 33 | *21.8* | 28 | *8.3* | 10 | *3.1* | 10 | *24.1* | 13 | *11.5* | 216 | *100.0* |
| **2010** | 128 | *20.6* | 53 | *43.0* | 51 | *12.4* | 8 | *3.4* | 11 | *20.3* | 19 | *0.3* | 270 | *100.0* |
| **2011** | 123 | *22.3* | 55 | *45.8* | 48 | *12.0* | 8 | *3.2* | 8 | *16.4* | 18 | *0.3* | 260 | *100.0* |
| **2012** | 125 | *22.8* | 49 | *44.0* | 42 | *10.1* | 8 | *3.2* | 10 | *19.2* | 17 | *0.7* | 251 | *100.0* |
| **2013** | 122 | *24.1* | 48 | *40.1* | 38 | *10.4* | 8 | *3.3* | 10 | *21.6* | 18 | *0.5* | 244 | *100.0* |
| **2014** | 116 | *25.0* | 51 | *36.8* | 32 | *9.6* | 8 | *4.0* | 13 | *24.0* | 18 | *0.5* | 238 | *100.0* |
| **2015** | 115 | *28.1* | 52 | *34.8* | 30 | *6.0* | 7 | *3.2* | 15 | *27.3* | 15 | *0.6* | 234 | *100.0* |
| **2016** | 116 | *27.2* | 53 | *43.6* | 29 | *6.5* | 4 | *1.3* | 14 | *20.6* | 14 | *0.7* | 230 | *100.0* |
| **2017** | 120 | *29.8* | 57 | *39.8* | 22 | *5.3* | 2 | *0.5* | 16 | *23.5* | 14 | *1.1* | 231 | *100.0* |
| **2018** | 123 | *29.7* | 57 | *42.3* | 23 | *5.3* | 2 | *0.5* | 13 | *20.5* | 13 | *1.6* | 231 | *100.0* |
| **2019** | 115 | *22.9* | 57 | *43.6* | 24 | *5.9* | 2 | *0.4* | 19 | *25.3* | 11 | *1.9* | 228 | *100.0* |

*Source: 0-10CONSOB (2020). Report on corporate governance of Italian listed companies*

The departure from this type of instrument in recent years could be due to the influx of international investors, which has led to the desire for more competitive companies.

Finally, in voting structures, for example, the ability of listed companies to issue shares with limited or zero voting rights has decreased over the years, as these shares are not appreciated by investors, mainly because of the poor protection for investors in Italy, rising from 120 in 1990 to 12 in 2019, as showed in figure 5.

However, three companies have adopted multiple voting shares, representing 0.2% of market capital, and this has remained stable in comparison to the previous years.

There has been an increase in the distribution of the increased vote; in fact, there are 53 issuers in the articles of association, 7 more than the previous year, loyalty share. This technique encourages long-term investment, and stable investments

from investors who desire improved results could increase the efficiency of the market,[101] as showed in table 11.

*Table 11:Italian listed companies issuing non-voting shares*

| | savings shares | | | preference shares | | | all non-voting shares | | |
|---|---|---|---|---|---|---|---|---|---|
| | no. | weight [1] | % share capital [2] | no. | weight [3] | % share capital [4] | no. | weight [5] | % share capital [6] |
| **1992** | 104 | 36.9 | 10.8 | 25 | 8.9 | 3.2 | 120 | 42.6 | 14.0 |
| **1998** | 69 | 31.9 | 8.2 | 10 | 4.6 | 1.1 | 70 | 32.4 | 9.4 |
| **2010** | 36 | 13.3 | 5.3 | 5 | 1.8 | 1.7 | 37 | 13.7 | 7.0 |
| **2011** | 36 | 13.8 | 5.5 | 6 | 2.3 | 1.5 | 37 | 14.2 | 7.0 |
| **2012** | 31 | 12.3 | 4.7 | 3 | 1.2 | 0.2 | 32 | 12.6 | 4.9 |
| **2013** | 27 | 11.1 | 4.9 | 1 | 0.4 | 0.2 | 28 | 11.5 | 5.1 |
| **2014** | 22 | 9.2 | 3.6 | 1 | 0.4 | 0.1 | 23 | 9.7 | 3.8 |
| **2015** | 19 | 8.1 | 3.6 | -- | -- | -- | 19 | 8.1 | 3.6 |
| **2016** | 18 | 7.8 | 5.0 | -- | -- | -- | 18 | 7.8 | 5.0 |
| **2017** | 17 | 7.4 | 3.8 | -- | -- | -- | 17 | 7.4 | 3.8 |
| **2018** | 14 | 6.1 | 3.2 | -- | -- | -- | 14 | 6.1 | 3.2 |
| **2019** | 12 | 5.3 | 0.7 | -- | -- | -- | 12 | 5.3 | 0.7 |

*Source: 0-11:CONSOB (2020). Report on corporate governance of Italian listed companies.*

In conclusion, although these instruments are useful for the expropriation of minority shareholders, the regulation of the instruments has increased the protection of investors, leading to transformations over the years.

While pyramid structures were the most widely used system in the early 1990s to gain control of companies, the use of this method has been reduced significantly, leaving room for changes in shareholder agreements, which have also decreased since 2010.

Finally, the voting structures have also followed the same trend, and the number of companies that issue shares without voting rights have significantly decreased.

[101] CONSOB (2020). "Report on corporate governance of Italian listed companies". Tab 1.15- Italian listed companies issuing non-voting shares, p.20

In 2014, the decree of competitiveness also put forward the possibility of issuing shares with multiple votes, which has not changed the situation.

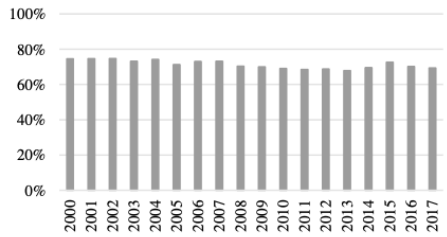
The increased protection of shareholders, the competitive pressure from international investors and the process of reforms that have affected the years under consideration have allowed for the removal of these instruments, making a greater contendibility possible in Italy.

Abrardi and Rondi (2020), [102] studied the evolution of ownership and control of Italian listed companies for the period 2000 to 2017, and confirmed that family companies are the most widespread and prevalent ownership model in the Italian context. In particular, the following trends over the years were analysed:

a) Percentage of family firms over private firms

   As can be clearly seen, the percentage of family enterprises in the category of private enterprises showed an almost stable trend during the years under consideration, with an increasing percentage of 60%.

*Figure 1: % of family firms over private firms*



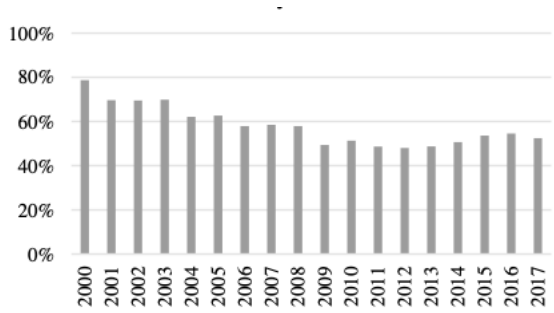

*Source: 0-12Abrardi, L., & Rondi, L. (2020). Ownership and performance in the Italian stock exchange: the puzzle of family firms. Journal of Industrial and Business Economics*

[102] Abrardi, L., & Rondi, L. (2020). *Ownership and performance in the Italian stock exchange: the puzzle of family firms*. Journal of Industrial and Business Economics

b) Percentage of family businesses with CEOs who are members of the family

The percentage of family businesses in which the CEO is also a member of the family has remained high over the years, but it is showing a decreasing trend.

*Figure 2: % of family firms with Fam. CEO over family firms*




*Source: 0-13Abrardi, L., & Rondi, L. (2020). Ownership and performance in the Italian stock exchange: the puzzle of family firms. Journal of Industrial and Business Economics*

c) The decrease in the number of businesses where the CEO is a member of the family

The number of family businesses where the CEO is a member of the family has decreased over the years due to an increase in family businesses that have a CEO from outside the family rather than a real decrease in family businesses.

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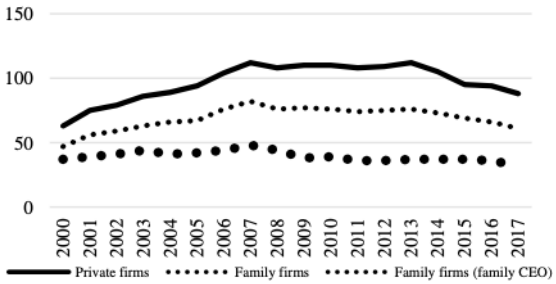
*Figure 3: Number of private and family firms*

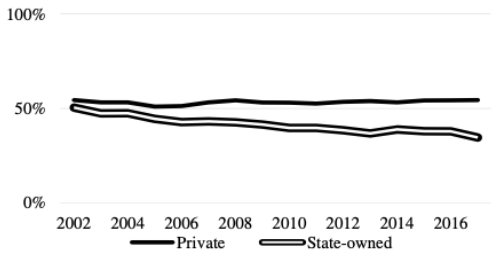



*Source: 0-14Abrardi, L., & Rondi, L. (2020). Ownership and performance in the Italian stock exchange: the puzzle of family firms. Journal of Industrial and Business Economics*

d) Controlling share of private and state-controlled firms

This is a comparison of the controlling shares of private and public enterprises, emphasizing that private companies with high controlling shares prevail.

*Figure 4: Controlling share of private and State-controlled firms*

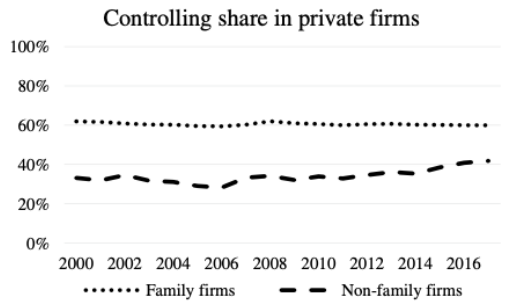



*Source: 0-15Abrardi, L., & Rondi, L. (2020). Ownership and performance in the Italian stock exchange: the puzzle of family firms. Journal of Industrial and Business Economics*

e) Controlling share in private firms

This is a comparison of control quotas in family and non-family enterprises, which shows that family enterprises have consistently maintained larger quotas than non-family enterprises over time.

*Figure 5: Controlling share in private firms*



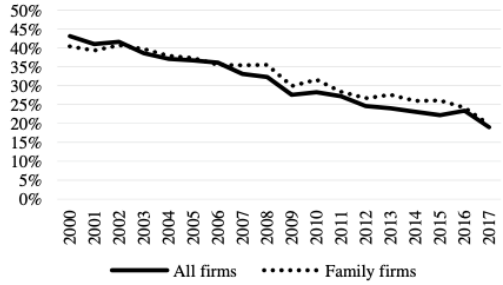

*Source: 0-16Abrardi, L., & Rondi, L. (2020). Ownership and performance in the Italian stock exchange: the puzzle of family firms. Journal of Industrial and Business Economics*

In their study, they found that, in general, the average controlling share of family businesses is never less than 60%.

However, companies have had the following results with regard to the separation of ownership and control:

- Enterprises with a dual voting structure and shareholder agreements have declined over time, indicating a greater alienation between ownership and control.

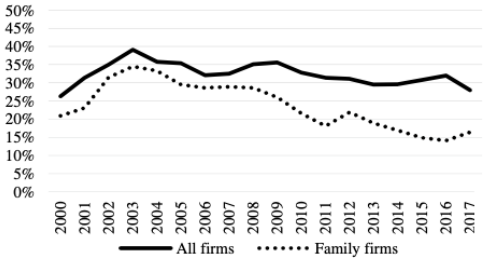
*Figure 6: % of firms with a dual-class share system*




*Source: 0-17Abrardi, L., & Rondi, L. (2020). Ownership and performance in the Italian stock exchange: the puzzle of family firms. Journal of Industrial and Business Economics*

- The decrease in agreements between shareholders is greater in family holdings, indicating that they are more sensitive to the principal-principal problem.

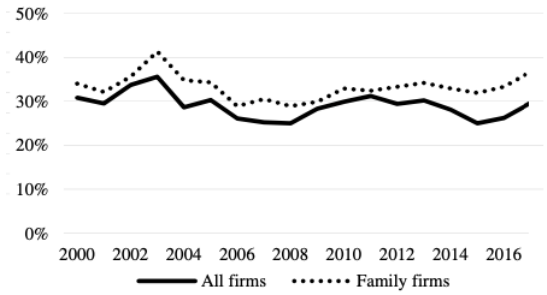
*Figure 7: Shareholder's agreements (voting pacts)*




*Source: 0-18Abrardi, L., & Rondi, L. (2020). Ownership and performance in the Italian stock exchange: the puzzle of family firms. Journal of Industrial and Business Economics*

- The proportion of family businesses in which the CEO is also chairperson of the directors' board has increased over time, making family businesses more powerful.

*Figure 8: % of firms with CEO-Chair duality*




*Source: 0-19Abrardi, L., & Rondi, L. (2020). Ownership and performance in the Italian stock exchange: the puzzle of family firms. Journal of Industrial and Business Economics*

# Chapter 4

# Dividends

A detailed analysis of the repurchase of shares, an alternative to dividends that companies often consider currently, follows, starting with the concept of the dividend and the fundamental steps a company has to know to ensure dividend distribution to shareholders (data of announcement, ex-dividend data, holder of record date, date of dividend distribution).

The repurchase of shares has downsides, in fact, it was immediately regulated by law, but it also has positives, and it sends a positive message on how a company sees its future.

After defining the main tools with which a company can reward its shareholders for their trust, a study by Megginson and Von Eije (2008)[103] regarding the main factors that influence a company's choice of one instrument in preference to another is analysed.

The main findings of this study show that there is a greater propensity for mature companies and companies based in common law countries to pay dividends, and that the tendency to pay dividends rather than repurchase the shares decreased dramatically in Europe during the years under consideration, 1989 to 2005.This indicates a significant change for companies, as the choice is influenced by important variables, such as the legal system, the business life cycle, and also a company's future perspective of itself.

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[103] Megginson and Von Eije. (2008). *Dividends and share repurchases in the European Union*. Journal of Financial Economics n 89, pp. 347-374

## 4.1 Definition

The financial remuneration of shareholders invested in a company can be in the form of dividends, equity rights attributed to shares, or capital gains, which is obtained when the shareholder sells the shares.

In this chapter, the issue of dividend policy is explored and the context explained. In particular, in a simple definition, the payout policy refers *"to the ways in which firms return capital to their equity investors. Payouts to equity investors take the form of either dividends or share repurchases."*[104]

This means that a company can decide whether to withhold the profit for the year for new projects, investments or to the increase reserves, or to distribute it to the shareholders in the form of dividends or share repurchases, also called buyback.

In Italy, the decision of whether or not to distribute the dividends is taken at the ordinary shareholders' meeting, in accordance with Article 2433 of the Italian Civil Code.

They are different in ways in which the company can distribute dividends, and the main ones are as follows:

1. Cash dividends

   The category of cash dividends is the form of distribution that uses liquidity. There are two different types of dividends, ordinary and extraordinary, and the difference is that, in the latter, the company pays a

[104] Kalay Avner, Lemmon Michael, (2008), "*Chapter 10 - Payout Policy*", Editor(s): B. Espen Eckbo,In Handbooks in Finance, Handbook of Empirical Corporate Finance,Elsevier, p.6

share in addition to the ordinary ones on special occasions, using the distributable reserves as a source.

Cash dividends also include the category of liquidation dividends, which are dividends from funds obtained by the company through the sale of certain assets or, in the worst-case scenario, when the undertaking returns the capital to the shareholders during the process of being concluded.

With dividends through capital return, the enterprise uses accounting resources as the premium fund instead of distributing dividends with current profits or accumulated reserve.

Usually, the measure of dividend is expressed by two indicators, namely dividend yield ratio (DYR) and dividend payout ratio (DPR).

$$DPR = \frac{Dividend\ per\ one\ share}{net\ profit} \cdot 100$$

$$DYR = \frac{Dividend\ per\ one\ share}{share\ market\ price} \cdot 100$$

2. Share dividends

   This category of dividends is mostly used when the company issues new shares to shareholders who are entitled to a dividend instead of in the form of liquidity, a preferred option for a company at times when the available liquidity is low.

   A negative effect is that, when a company issues new shares, the price decreases.

3. Repurchase of shares

   The company buys its shares.

The process for the payment of dividends follows a chronological order with specific dates:

- Date of announcement

  The board of directors announces the approval of dividends, which must be approved by the shareholders before it can be paid. This is usually made official through a press release or a posting on the company's official website.

- Ex-dividend date

  This date precedes the holder of record date by a few working days, so anyone who bought shares on this date or after will not receive dividends. In fact, if someone buys shares after this date, the dividend will be paid to the shareholder who sold the share. In general, this specifies the date on which a shareholder is entitled to the dividend, so, to be able to receive dividends, the shares must have been bought before this date.

- Holder of record date

  The company pays dividends to those who are registered shareholders on that date, so it is the date on which the company determines which shareholders are entitled to receive dividends.

- Date of dividends distribustion

This is usually one month after the date of registration of dividends, and the company undertakes to pay the dividends to registered shareholders.

The company's decision to pay dividends is not casual; in fact, it is often done to boost the confidence of its investors.
As previously mentioned, the distribution of dividends can also be in the form of the repurchase of shares, a practice that is further explored in the following paragraph.

## 4.2 Share repurchases

As mentioned above, an alternative way of distributing liquidity to shareholders is through the repurchase of shares, where the company buys its own shares from investors who benefit through the difference between the purchase price and the sale price.
In fact, if the dividends are subdivided according to a price for each share, the smaller number of shares after repurchasing means that each shareholder will receive a greater dividend.
The first regulation relating to the repurchase of shares can be traced back to 1976 with Directive 77/91/EEC, which was issued to prevent any abuse against shareholders or the company's creditors. The repurchase of shares was prohibited or limited by the laws in force until the 1990s, but, through the 2003 Share Repurchase Regulation, the European Commission has promoted this useful tool to stabilise the market, and it was the task of the member states to establish the mechanisms to enable the monitoring of these operations and punish actions

deemed to be for the purpose of market abuse. In 2016, Delegated Regulation N. 1052 of the European Commission came into force to update the 2003 regulation, and it specifies, for example, reporting requirements, such as the obligation to specify the maximum amount of money allocated, the maximum number of shares to be repurchased and notification to competent authorities as well as to the public of the price terms. Finally, in Italian law, the legislator has placed a limitation on own shares of 20% of the share capital for companies using venture capital, through Article 2357 of the Italian Civil Code[105].

The repurchase of shares, however, also has negatives, such as the following factors:

- Watering down of capital

  If a company can buy own shares that are not fully paid up, for which the full contribution has not been made, then there is the risk that the company becomes its own entrepreneur, because it will have the obligation to complete the contribution at the head of the company, which would have a credit of itself, but also a debtor and the nominal share capital would no longer correspond to the real one. This issue can be avoided through the purchase of fully paid-up shares

- *Strengthening the power of directors*

  The legislator neutralized this risk by providing for the suspension of voting rights for own shares while they are in a company's portfolio.

[105] Article 2357 of the Italian Civil Code

- *No contendibility of the control*

  This is the opposite of the advantage of strengthening the control of the group. Quantitative limits for the purchase of treasury shares have been foreseen to avoid excessive closure of the company.

The possibility that a company may subscribe to its own shares is always prohibited to avoid the formation of fictitious share capital, because the company would become its own creditor and the contributions due will be due by the company; therefore, an increase in nominal share capital would not correspond to a real increase in assets, because it would have claims against shareholders on the assets, but also a claim against itself. The company would have to include the corresponding debt in the liabilities, in addition to adding the value in the share capital. The purchase of treasury shares is permitted with limits related to the following:

- The use of distributable profits and available reserves

- The possibility to buy only free shares to avoid the watering down of capital

- In listed companies, quantitative limits have been set to avoid excessive prejudice to the contestability of the control

- For the purchase and subsequent resale of treasury shares, approval from the ordinary shareholders' meeting is required

- It is important to remember that, in view of the risk of the investment, it is necessary to post to the liabilities in a negative reserve from own shares

- It is stipulated that the right to profit and the right of option is to be shared proportionally over the other shares.

There are several ways in which the company can buy back its shares, namely buy back on the free market; targeted buy-back; and purchase offer, green mail, and Dutch auction.

1. The buy-back on the free market is the most common practice for these transactions. The company operates as if it is any investor in the market.

2. With the Dutch auction, the company arranges an auction in which it selects the price levels at which it will buy the shares, so each shareholder will choose the number of shares to be sold for each price level to ensure that the company will pay the lowest price to buy back the shares.
   In particular, the price of the shares is lowered until there are enough offers to sell them all, and all the shares are sold at that price, so the Dutch auction finds the price for the demand that equals the offer.

3. Targeted buy-back, on the other hand, is a practice used when a company has already decided from which shareholder it wants to buy back the shares, and the company usually pays a higher price than the market price. This strategy is often used to maintain control and avoid possible hostile takeovers.

4. Another practice for the repurchase of shares is the green mail; if a company feels threatened by a possible takeover, to maintain control, one or more investors acquire as many shares as possible so that the takeover becomes more expensive and the number of licenses in circulation are reduced. Finally, the purchase offer is addressed to all those who own securities, to repurchase the shares in a specified period and at a fixed price, typically with a premium over the market price, but, if the shareholders do not offer a sufficient number of shares, the company may decide to cancel the offer and to not run the buy-back.

Both paying out dividends and repurchasing shares change the value of a company. The repurchase of shares changes the number of shares in circulation, while the dividends affect the price of the shares on the ex-day. With the repurchase of shares, however, there are also advantages, as it sends an optimistic signal on the prospects of the company.

Bartov et al. (1998)[106] analysed the factors that a firm should consider when deciding whether to pay dividends or to buy back its own shares.

The first factor to consider is equity undervaluation. If management believes that a company is undervalued, given that they are the only ones who are aware of the prospects of the company due to information asymmetry between inside equity and outside equity, they could buy back shares to increase the price and, thereby, the value of the company.

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[106] Bartov & al. (1998). *Evidence on How Companies Choose Between Dividends and Open-Market Stock Repurchases*. Journal of Applied Corporate Finance. *11(1)*

A second issue concerns management compensation. Many companies reward managers with shares, so unlike the repurchase of shares that has no effect on stock options and stock appreciation, dividend distributions can reduce their value, and, therefore, managers who own these rights will prefer to distribute the money to shareholders through the repurchase of shares.The last factor the authors considered is the extent of holdings by institutional investors. If there are loyal investors who have expressed a clear preference for stock repurchases, for example, for issues of favourable tax consequences if they sell shares, then it would be preferable to buy back shares rather than pay dividends to maintain a solid relationship with these investors. The authors of the study investigated 150 companies of comparable size in the same sector for the years 1986 to 1992, comparing those who increase their distribution of dividends without repurchasing shares with those who buy back shares without distributing dividends. The results of the comparison confirm the relationship between the above factors and the choice of either repurchasing shares or distributing dividends.

## 4.3 Dividend vs repurchase of shares in Europe

The issue of dividends and share buybacks was investigated by Megginson and Von Eije (2008)[107], who analysed the situation in 15 countries between 1989 to 2005, with a database of over 4,100 listed industrial companies that were members of the European Union until May 2004. The study was done in response

[107] Megginson and Von Eije. (2008). *Dividends and share repurchases in the European Union*. Journal of Financial Economics n 89, pp. 347-374

to the need to analyse the tools that companies use in Europe. Literature on the evolution of the payment policy in Europe rather than in the United States is scarce.

The decision on starting the analysis from 1989 was not by chance at all, because that was when the Delors Plan was adopted, preceding the creation of the European monetary union, and it became an official policy of the European Union in 1991 through the ratification of the Maastricht Treaty in 1992.

Moreover, prior to that date, the database the authors had at their disposal could not provide full information of the undertakings they had selected. The study ended in 2005 because that is the most recent year for which the data is available.

The nations in consideration were quite developed during those years and were forming a union from an economic and political point of view, but the tax regimes, financial markets and corporate governance systems remained segmented.

In addition, while most EU countries follow civil law systems, two of the countries studied, Britain and Ireland, follow common law.

The third reason why these nations were selected is that there are cross-sectional and time-series variation with regard to dividend taxation and the repurchase of shares, understanding how tax preferences can influence the choice of how to distribute dividends.

Finally, another key element is that, during the Structural Funds period, since 2000, many European countries had adopted the euro as their common currency, but Great Britain, which was the nation with the largest number of listed companies, decided to retain its currency.

The authors of the study found that EU and US companies quite behaved similarly with the repurchase of shares and the distribution of dividends.

When the distribution of dividends declined in American companies, according to a study by Fama and French (2001)[108], the number of European companies that distributed dividends also declined, but real dividends increased.

Skinner (2008)[109], shows how the buy-back of shares has acquired a higher value in US companies and, at the same time, it shows that companies in European countries have also increased the value of the buy-back of shares, which was worth more than half of the cash dividends, despite the fact that approximately a quarter of European companies are using this option instead of cash dividends.

In general, there is a greater propensity to buy back shares and a lower propensity to distribute dividends in both European companies and American companies.

In addition, the same factors, such as the size of the company, or even the market ratio and profitability, explain the choice of whether to pay dividends or buy back shares.

Although the trend is quite similar in European and American companies, what did change was the timing when companies began to reverse the choice between paying dividends or repurchasing shares, with American companies being the first.

Another surprising result concerns the seniority of companies; older companies are more likely to pay dividends, and they pay greater dividends in cash than younger companies.

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[108] Fama, E., French, K., (2001). *Disappearing dividends: changing firm characteristics or lower propensity to pay?*. Journal of Financial Economics. *60*, pp.3–43.

[109] Skinner, D., (2008). *The evolving relation between earnings, dividends, and stock repurchases*. Journal of Financial Economics 87, pp.582–609.

If the head office of a firm is in a country with common law, there will be a greater propensity to pay dividends in cash and less likelihood of shares buy-back than those with head offices in countries with civil law.

Leverage is also a significant factor in a company's choice of whether or not to distribute dividends: greater leverage reduces the choice of paying dividends in cash.

In addition, companies that have high cash supplies have less difficulty in paying dividends, but, at the same time, it increases the possibility to buy back shares or to increase the value of the cash dividends.

In conclusion, dividend distribution declined in Europe during the years under review. There are many factors that affect the choice of dividend distribution or the repurchase of shares, such as leverage or the legal system of the country in which the company has its head office. Investors could learn from choosing between dividends or share buybacks, because higher dividends correspond to higher stock prices, while a share buy-back indicates that a company is confident of its future and believes that the shares are undervalued.

# Chapter 5
# Pay-out policy: theoretical models

## 5.1 Lintner model

The Lintner model (1956)[110] is one of the oldest models related to dividend discussion, and it has often emerged in empirical studies.

Lintner had information available on a sample of more than 600 listed companies and decided to analyse 28 companies during the years 1947 to 1953 to create a heterogeneous sample for better analyses, considering the area defined industrial, due to the strong difference in dividend policy in this sector.

The companies were selected to investigate the most significant differences in dividend policy in similar companies in some respects, but different for others.

The work done in the study with information published by companies and obtained from interviews with managers and directors of companies and the information suggests that the strong relationship between a company's tendency to distribute dividends can be explained by the following equation that calculates the change in dividends from one year to the next:

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

in which:

[110] Lintner, J. (1956). *Distribution of income of corporations among dividends, retained earnings, and taxes*. The American Economic Review, 46(2), pp- 97-113

- $D_{it}^{*} = r_{it}^{*} P_{it}$
- $r =$ payout ratio target
- $P_t =$ profit after tax for year t
- $\Delta D_{it} =$ payout variation for the company i in the time t
- $D_t$ and $D_{(t-1)} =$ payout in year t and $t - 1$
- $c_i =$ fraction of difference between $D_{it}^{*}$ and $D_{(t-1)}$
- $u_{it} =$ Discrepancy between the expected and the observed dividend
- $a_i =$
  constant equal 0 for some companies, but it is generally positive
  to demonstrate the reluctance to reduce dividens

This model could explain 85% of the variations in dividends in the companies in the observed sample. According to the author, companies set a long-term dividend rate and adjust the dividends over the years, increasing them only when they are confident that they will be able to sustain higher levels into the future. This ensures that the dividend policy is stable, and the value of dividends from one year to the next is modified for similar or increasing variations of that target payout ratio.

Generally, the highest levels of dividends are provided by more mature enterprises with less volatile profits. The choice to consider long-term rather than short-term changes in dividends results from the fact that managers are reluctant to change their decisions in the short term and then have to change it again.

Consequently, the main effect of this model is the signal effect; in this context, changes in dividends are anticipatory of changes in profits, and the dividend can be expressed as a weighted average of current and past payments, where

reductions in dividends are perceived as bad news by outsiders, while increases are regarded as good news.

An increase in dividends could lead to the belief that the company anticipate good prospects for the future, and this is good news for the market, while a reduction in dividends is regarded as bad news. However, this conclusion does not imply that shareholders always prefer dividends over capital gains.

## 5.2 Outcome versus substitution model

As expressed in the chapter on corporate governance, conflicts of interest often arise between majority and minority shareholders on the main issues, because the majority shareholders could benefit from their position and knowledge and acquire excessive salaries, purchase goods at favourable prices or use strategies to benefit from results obtained, through the exploitation of the private benefits of control.

One of the main tools to combat this agency problem is the law, which can provide shareholders with the power to protect their investments against those who might appropriate them.

As shown by La Porta et al. (1998),[111] some countries, those with common law systems, provide greater and more effective protection for minority shareholders, but it is not only the law that can protect shareholders; the role of dividends is useful to combat this type of agency problem.

[111] La Porta, R., & al. (1998). *Law and Finance*. Journal of Political Economy,106(6), pp.1113-1155.

La Porta et al. (2000) [112]analysed the role of dividends in an agency context, but did not consider the repurchase of shares in their study. The first model analysed by the authors was named the outcome model, where dividends are seen as complementary to the law.

The first model assumes that, in a country with effective protection, minority shareholders use their power to obtain cash from the company, with the aim of preventing insiders to use the company's profits to their advantage.

The instruments that allows minority shareholders to receive more cash dividends is a vote for directors who institute policies for improvement or by suing those companies that allow only insiders to benefit from corporate profits.

The greater the claims that minority shareholders have, the greater the dividends they will be able to obtain. Ultimately, in countries with good legal protection, minority shareholders will have a greater distribution of dividends.

The authors also add a further hypothesis to the model, namely to consider a company in a country with not only good shareholder protection, but also with strong growth opportunities.

In this case, dividends can be seen as the result of effective protection of minority shareholders, but it should be stressed that, if shareholders feel protected, they will accept lower payments with high reinvestment rates, but only in a society with good growth opportunities where there is trust and the shareholders believe that, when the company is rewarded for the investments made, they will receive higher dividends.

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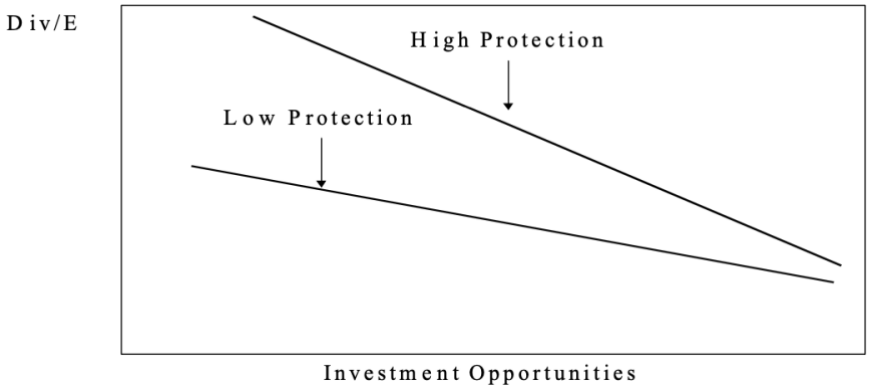
[112] La Porta, R., & Al. (2000). *Agency Problems and Dividend Policies around the World*. The Journal of Finance 55(1), pp. 1-33.

As a result, companies with strong protection and high growth opportunities should have a lower distribution of dividends than companies with low growth opportunities and strong protection.

In the event that there is little protection for shareholders, even though the the company may have strong growth opportunities, shareholders will not be confident of what they may receive tomorrow, so they will attempt to take everything they can immediately.

This first theory is expressed by what is called the outcome model, illustrated in Figure 9, with the investment opportunities, the performance of companies with high and low protection and the rate of dividends paid.

*Figure 9: Outcome Model*




*Source: 0-1 La Porta & Al. (2000) Agency Problems and Dividend Policies around the World*

In the substitution model, dividends are seen as substitutes for legal protection, and corporate reputation becomes essential, for example, through paying dividends, to reduce insider expropriation. In particular, reputation plays a crucial role in countries where shareholder protection is poor and the need to pay

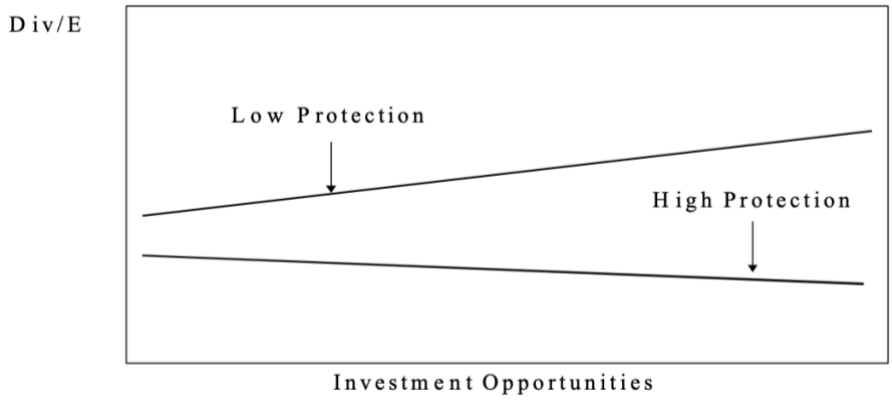
dividends increases, compared to countries where shareholder protection is stronger.

This implies that, in countries where there is little shareholder protection, there should be a greater distribution of dividends so that companies can acquire and maintain a high reputation. For this reason, dividends are seen as substitutes for the legal system.

In addition, in this context, if businesses have a good opportunity for growth, they will seek to build a strong reputation; therefore, companies with good growth prospects will attempt to distribute more dividends than companies with low growth prospects and will also make better use available funds; although, in this model, the relationship between the prospect of growth and dividends remains ambiguous.

As shown in Figure 10, in the model in which dividends are substitutes, there is corresponding low protection, and, as the opportunity for growth increases, there is a greater distribution of dividends compared to the situation in which there is strong protection of shareholders.

*Figure 10:Substitution Model*




*Source: 0-2La Porta & Al. (2000) Agency Problems and Dividend Policies around the World*

In conclusion, the analysis of the two different models show that, in the model in which dividends are seen as an "outcome" of the legal system, higher investment rates are expected in countries with strong investor protection, while, where dividends are seen as "substitutes" for the legal system, the opposite will occur.
Unlike the system in which dividends are substitutes, the outcome model predicts that companies with higher growth opportunities should have higher dividend rates, while the substitute model provides that, in countries where there is a lack shareholder protection but a high opportunity for growth, companies should increase dividend distribution rates to create or maintain a high reputation and benefit from the investment opportunity.
In their empirical study that covered the period from 1989 to 1994 and included 33 countries around the world, selected for their heterogeneity regarding the policy of minority shareholders, the researchers used models. In the outcome model, dividends are derived from effective protection of minority shareholders, while, in the other model, dividends are used as substitutes for the legal systems so that companies can build a reputation through the distribution of dividends.
In the analysis in the study, they found confirmation for the way the models set the conditions for the distribution of dividends, with a greater reliability in the outcome model; companies that operate in countries with better protection of minority companies and strong opportunities for growth pay higher dividends, but, when a company has rapid growth, they pay less dividends than companies with slower growth, with the idea that the shareholders can expect dividends if they perceive good future investment opportunities, while unprotected shareholders will attempt to take any dividend they can, regardless of growth

opportunities, which could be the result of an agency cost due to poor legal protection.

Finally, although they found that the legal system affects dividend distribution choices, the authors found no conclusive evidence of any effect that taxes may have.

Over the years, there have been several studies that compare the outcome model and the substitution model, and in some cases the outcome model had greater reliability, while it was the substitution model in other cases and could be the type of agency problem, if principal agent or principal principal, to determine which model prevails.

In fact, the typical main problem agent between the manager and the shareholders is a problem that concerns more enterprises in the United States than in Europe.

Larin et al. (2019)[113] studied the relationship between corporate governance and dividends through the two models developed by the authors previously mentioned.

The two authors considered the European market, which is mainly characterised by companies with a strong concentration in ownership, by analysing the possible factors that drive a company to distribute dividends, and they also took into account the different levels of shareholder protection.

They used a set of data that included four European countries: Germany, France, Italy and Spain, in 2017, and included all listed companies. ISS corporate governance data that includes measures that can analyse the level of investor

[113] Larin, A., & Al. (2019). *Relationship Between Corporate Governance and Dividends: Outcome vs. Substitute Model.* National Research University Higher School of Economics.

protection was used, as well as data from the Bloomberg dataset, which includes corporate governance measures and financial data.
The indices used for the study are as follows:

- ISS Quality score

  This represents the total score assigned by Institutional Shareholder Services for corporate governance practices.

- ISS Board Score

  This is the score given to the structure of the company's board of directors.

  This measure is based on aspects such as supervision of the managers' decisions and whether the aim of the board is to defend the interests of shareholders or not, even if this index is limited by the fact that the board of directors is voted on at the annual shareholders' meeting, which could influence the work of the board since the shareholders decide who to appoint.

- ISS Audit Score

  This refers to a company's audit process, the involvement of external performance monitoring techniques in the company and it can also focus on agency conflicts through external monitoring.

- ISS Shareholders score

  This is a score that is allocated for the rights of the shares in the company.

- ISS Compensation Score

  This pertains to the score for the company's clearing practices and the measure is mainly focused on the conflict of interest between managers and shareholders

The authors allocated scores ranging from 1 for the worst to 10 for the best, reversing the form used by the ISS for these scores, which is 1 for the best and 10 for the worst.

These indices have been used in several studies, and it has been shown that minority shareholders benefit from improved quality of governance, as measured by the index ISS.

The following variables were used to verify the assumptions:

- Sales growth

  Increases in sales were used to verify opportunities for growth

- Dividend ratio

  The dividend ratio was used to test the level of dividend distribution as the share of dividends paid in market capitalisation

- ROA and operating margin

  These two measures were used to verify short- and long-term profitability

- Total assets

  The logarithm of this measure was used to determine the size of the enterprise

- Beta

  The beta variable was used for risk measurement

The main hypotheses that scholars test to assess whether the model should be implemented are as follows:

- *"H1: Firms with strong governance should pay larger dividends (classical Outcome)";*
- *"H2: Firms with strong governance have a stronger negative relationship between growth opportunities and dividend payouts";*
- *"H3: Firms with strong governance have a stronger negative relationship between profitability and dividend payouts";*
- *"H4: Firms with strong governance have a stronger positive relationship between size and dividend payouts";*
- *"H5: Firms with strong governance have a stronger positive relationship between riskiness and dividend payouts";*

With the first hypothesis, through the basic regressions and by conducting tests, the authors found that companies with good governance pay more dividends, which is in line with the classic outcome model.

Therefore, the results show that both management conflict and conflict between majority and minority shareholders can be overcome by higher dividend payments, thus confirming the hypothesis of their study. Better governance should lead to more dividends to mitigate future conflicts of interest.

Moreover, with the addition of growth opportunities as a variable to the model, it was found that companies that have significant opportunities for growth and also good governance, as confirmed by external control systems or good shareholder scores, tend to pay less dividends, which confirms the second hypothesis of the model and is important for both agency conflicts, but no correlation was found between size related to the board and compensation score.

In addition, they found that, with higher rates of return, companies prefer to not follow the outcome model, probably because the companies with these characteristics prefer to use this money to increase their value with more expensive and innovative investments, which confirms the third hypothesis.

The results obtained related to the fourth hypothesis, however, are at odds, because larger companies tend to pay smaller dividends. If larger size is combined with maturity, a link between size and business life cycle is created, and the more mature companies tend to pay less dividends.

An analysis of riskiness as a required cost of capital might make it seem that, as governance efficiency gains, as confirmed by a positive audit score value, shareholders would receive higher dividends, but this result cannot be used as an absolute, as the score for the board, the audit score, is negative.

The interaction of corporate governance with the financial characteristics of the company shows that dividends are also effective in combination with these government practices; despite the fact that the substitution model can sometimes dominate the outcome model, the effects of the outcome model tend to increase with an increase in the values of financial indices, such as size and profitability.

Finally, although the European market is characterized by highly concentrated companies, this does not affect or limit the effect of the corporate governance outcome model.

## 5.3 Modigliani and Miller's theory of pay-out irrelevance

In a study on the impact of dividend policy on company value, Modigliani and Miller (1961),[114] considered three basic assumptions for their theory of the irrelevance of dividends:

- Perfect capital market

  In the context of a perfect capital market, all players have access to information, they have no transaction costs, and each player is too small to influence the market price of the shares.

- Rational behavior

  Individuals are rational and they value their portfolio as a whole, while wanting to maximize it without considering whether it is from a cash payment or an increase in the value of the shares in the market.

- Perfect certainty

  All investors have perfect confidence in the current and the future values of shares prices and dividends, so it follows that there is no information asymmetry.

[114] Modigliani & Miller (1961). Dividend Policy, Growth, and the Valuation of Shares. The journal of Business 34(4), pp. 411-433

Under these assumptions, scholars consider that all stocks should follow a fundamental principle, namely that the rate of return on each stock should be the same throughout the market in a given time frame.

Over a period of time *t*, the yield of each share $\rho(t)$, irrespective of enterprise *j*, shall be equal to the sum of the dividends per share paid by the company *j* over period *t*, $d_j(t)$, and the capital gains resulting from the difference between the share price of enterprise *j* at the end of the period *t,* that is, period *t+1,* and the price of $p_j(t+1)$, shares at the beginning of period t, $p_j(t)$, all divided by this last variable:

$$\rho(t) = \frac{d_j(t) + p_j(t+1) - p_j(t)}{p_j(t)}$$

Through a simple inverse formula, one can derive the share price for each enterprise *j* at the beginning of period *t*:

$$p_j(t) = \frac{1}{1+\rho(t)}\,[d_j(t) + p_j(t+1)]$$

To evaluate the effect of the dividend policy on company value, scholars, starting from the previous equation and, multiplying each member by the number of $n(t)$ shares, scholars arrived at the following equation:

$$n(t)\,p_j(t) = \frac{1}{1+\rho(t)}\,[n(t)d_j(t) + n(t)p_j(t+1)]$$

where:

- $n(t)p_j(t) = V(t)$ represents the value of the enterprise at the beginning of the year

- $m(t+1)$: represents the number of new shares, if issued, sold during the closing price of the dividend p(t+1), so that:

$$n(t+1) = n(t) + m(t+1);$$
$$n(t) = n(t+1) - m(t+1);$$
$$n(t)p_j(t+1) = [n(t+1) - m(t+1)]p(t+1) =$$
$$= V(t+1) - m(t+1)p(t+1)$$

- $n(t)d_j(t) = D(t)$ represents the total dividend paid for each share, recorded at the beginning of the year *t*.

Therefore, one can write the equation as follows:

$$V(t) = \frac{1}{1+\rho(t)}\,[D(t) + V(t+1) - m(t+1)p(t+1)]$$

In this new configuration, there are three parameters that can influence the current value of the enterprise, namely, the current value of dividends, the future value of the ex-dividend enterprise and the value of each new share issued, if any. However, the current dividends, D(T), could also affect the market value of the new ex dividend, so the authors express the value of $m(t+1)p(t+1)$ as a function of the current dividends.

Assuming that the enterprise wants to make an investment at time *t* I(t), also considering that it showed a net profit during the period *t* X(t), the amount of external capital that the enterprise would require will be calculated as follows:

$$m(t+1)p(t+1) = I(t) - [X(t) - D(t)]$$

Substituting the expression in the last formula, the value of the enterprise will no longer depend on the level of dividends:

$$V(t) = \frac{1}{1+\rho(t)}[X(t) - I(t) + V(t+1)]$$

Ultimately, the authors conclude the study by stating that, given an investment policy, the dividend policy does not affect either the current price of the shares or the total return to shareholders.

## 5.4 Impact of market imperfections

The results derived from the theory of the irrelevance of dividends were highly contested, as they were not representative of a real context. In fact, to align the results obtained by Modigliani and Miller with a real situation, it is necessary to relax certain hypotheses and to consider the imperfections of the markets, such as information asymmetry, the effect of taxes, transaction costs or even agency costs.

In the following paragraphs, two specific fundamental effects are analysed, namely the tax effect and the customer effect.

### 5.4.1 Tax effect [115]

In a real context, shareholders must consider the effect of taxes on both dividends and capital gains and, if these are taxed at different rates, investors will not be indifferent to the source of income, dividends or capital gains.

In a situation where dividends are taxed at a high rate for capital gains, shareholders will receive less than the initial investment if an enterprise that issues share for more liquidity presents it to shareholders in the form of dividends. For example, if a firm collects 10 € from its shareholders and uses this money to pay 10 € in dividends, considering that dividends are taxed at 20% and capital gains at 10%, eventually shareholders after taxes are paid, then:

1. Shareholders must pay their dividend taxes: $10 \times 0.2 = 2€$

2. When the dividend is paid, the value of the company decreases and also the capital gains will be 10 € less when they will sell, and the capital gain taxes is reduced by $10 \times 0.1 = 1€$.

3. The total taxes they will pay is $2 - 1 = 1€$

4. Shareholders will receive only 9 € out of 10 € invested

[115] Berk& DeMarzo (2011). Corporate Finance I. Chapter 17 "*Payout Policy*". Pearson Italy

If the tax rate for dividends is higher than for capital gains, shareholders will pay less tax if a firm resorts to share buybacks rather than dividend distribution, and this saving will increase the value of firms that buy back shares.
In reality, if the tax rate for dividends is higher than for capital gains, the optimal dividend policy for a company is to not pay dividends; in fact, as has been established in the previous chapters, as a practice, the distribution of dividends has decreased, while and the repurchasing of shares has increased.

### 5.4.2 Customer effect[116]

Dividend policy has an impact on investor behaviour or reactions and can lead to volatility in market share prices.
The tax rates change according to different characteristics, such as income and the type of investment, so, according to the policy they adopt, companies can attract different investors.
Individuals who are in the highest income brackets will prefer companies that do not pay dividends or pay low dividends, while, on the contrary, high dividends, so it will be the task of the enterprise to adapt the amount of dividends paid according to the needs of its investors. However, in this regard, in their theory of the irrelevance of the policy of the dividends, Modigliani and Miller assumed that the nature of the investor does not affect the value of the enterprise.

[116] Ibidem

## 5.5 Signalling theory

The theory of reporting establishes that a company's decision on whether dividends should be distributed signals the situation in the company to outsiders, due to information asymmetries.

In a context devoid of information asymmetries, all the actors involved have access to information. However, when one group manages to obtain more information than another, as in the case of internal shareholders who participate in the management of the company and have more information than the external shareholders who finance the company, managers could use the distribution of dividends to send a signal to the market.

In fact, this theory was born in opposition to the one by Modigliani and Miller, as the latter believe that managers and investors all have the same information, but the phenomenon of information asymmetry is more representative of the reality of the conditions of a financial market. For this reason, managers resort to the distribution of dividends to share information on the future prospects of the company with investors.

In fact, a distribution of dividends only corresponds with a positive reaction from the market and vice versa in the opposite situation when two conditions are met.

1. Managers have more information than outsiders regarding the company's prospects

2. Managers must share a real signal, that is, the increase in dividend distribution must be accompanied by adequate financial resources and real growth prospects.

Currently, an announcement about a decrease or increase in dividends hides information that investors can clearly deduce. If managers increase dividends, the company has good prospects for future growth and, therefore, current stock prices would react positively, and the opposite is true when dividends decrease. This supposition has been confirmed by a theory from Lintner (1956), according to which managers do not change their dividend policy if the company might not be able to support the change into the future.

Bhattacharya (1979)[117], John and Williams (1985)[118] and Miller and Rock (1985)[119] built models based on different hypotheses but with common aspects to explain this theory.

In particular, the common assumptions in their models are as follows:

- Information asymmetry between managers and investors exists

- Managers use dividend distribution to reduce information asymmetry

- An increase in dividend distribution correlates to a good new, since it reflects positive growth prospects

- Managers prefer to not to decrease dividends for fear of releasing bad news into the market, which might and therefore reduce the company's

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[117] Bhattacharya, S. (1979). *Imperfect information, dividend policy, and "the bird in the hand" fallacy*. Bell journal of economics 10 (1), 259–270.

[118] John, K. and J. Williams, 1985, *Dividends, Dilution, and Taxes: A Signaling Equilibrium*, Journal of Financed, 1053-1070.

[119] Miller, M. H. and K. Rock (1985). *Dividend policy under asymmetric information*. The Journal of finance 40 (4), 1031–1051

value. Instead, in line with Lintner's theory, they prefer to keep the share of dividends distributed stable over the years and only increase it when there is certainty that the increase can be maintained into the future.

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# Chapter 6
# Empirical analysis

## 6.1 Literature Review and Hypothesis Development

The aim of this project is to analyse the behaviour of majority shareholders towards minority shareholders through the instrument of dividend policy, in the Italian context.

The studies in the literature on this subject are limited, and, for this reason, some of them will be studied in-depth for a clearer idea of the main results, to serve as a basis for the construction of the hypotheses of the empirical model of this project.

In the next section, the following study is analysed in detail:

- *Shareholder Conflicts and Dividends*[120]

  This study analyses the role of dividend policy in the principal-principal conflict in Norwegian private companies. The result of the study shows that the controlling shareholders use the payout policy to mitigate the conflicts and build trust.

[120] Berzins & al. (2017). Shereholder conflicts and dividends. Review of Finance, Volume 22, Issue 5, August 2018, pp. 1807–1840.

### 6.1.1 Shareholder Conflicts and Dividends[121]

Berzins et al. examined how dividend policy is used by majority shareholders vis-à-vis minority shareholders, if as a tool for conflict mitigation or as a tool to behave opportunistically.

In particular, the authors analysed a sample of Norwegian private companies that support the conflict reduction model and reject the opportunistic model.

The authors decided to focus their analysis on private enterprises for three main reasons:

1. The principal-principal problem is more frequent and probable in companies controlled by majority shareholders.

2. Control by majority shareholders is more common in private companies than in public ones.

These two motivations provide the majority shareholders with strong incentives to appropriate control of a company.

3. There is a lower level of separation between ownership and control in private companies.

Finally, the third motivation reduces the need for monitoring.

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[121] Berzins & al. (2017). Shereholder conflicts and dividends. Review of Finance, Volume 22, Issue 5, August 2018, pp. 1807–1840.

The authors used the following filters to obtain a sample that would be suitable for the study objective:

1. They excluded financial firms to avoid certain effects that could distort the outcome, such as accounting rules or ownership restrictions.

2. They precluded the subsidiary companies, because, even in this case, they could distort the results since the distribution of dividends is done for different reasons, such as risk management for the group as a whole.

3. They excluded companies that had negative sales values, assets and employment from the dataset to eliminate passive, non-operational companies.

4. They only considered companies that own 50% +1 of the shares.

5. They excluded companies that have a single owner, as there cannot be conflict between shareholders and, for similar reasons, excluded 5% of smaller companies, in terms of assets, sales and employment.

The baseline model constructed by the scholars is as follows:

$$Div_{it} = \alpha + \beta_1 Con_{it} + \beta_2 Liq_{it} + \beta_3 Pro_{it} + \beta_4 Growth_{it} + \beta_5 Risk_{it} + \beta_6 Size_{it} + \beta_7 Age_{it} + \psi_{it}$$

In particular, the measure of the payout is represented by the variable *Div* obtained as the ratio between cash dividends and net operating after tax, and it is a dependent variable.

The variable of interest in this case is $Con$, which represents the concentration or portion of equity in the hands of the majority shareholder, who could include relatives up to the fourth degree of kinship in family businesses.

The first hypotheses of the model are the following:

$$\begin{cases} \beta_1 > 0 & opportunistic\ model \\ \beta_1 \leq 0 & conflict\ reducing\ model \end{cases}$$

In the opportunistic model, as the conflict increases, the dividends paid decrease, contrary to what happens in the conflict reduction model.

Then, since the potential conflict between the majority and minority shareholders decrease with the increase of concentration, the coefficient of the concentration is 0 or negative in the conflict reducing model and positive in the opportunistic model.

In addition, as a test of robustness, they considered cases where the majority shareholder is a single individual rather than a family, institution or foreigner; where the majority shareholder is not a managing director and where the minority shareholder is institutional, as an individual has a greater tendency to extrapolate the benefits derived from control.

When the majority shareholder is not a managing director, there is less problem related to the principal-principal conflict, but more related to principal-agent ones, and when the minority shareholders are part of the institution, conflict is better monitored.

The other variables are control variables, which are as follows:

- Liq

  This represents liquidity, so the more liquid assets a company has, the easier it is to pay high dividends due to low transaction costs.

  It is calculated as follows:

$$Liq = \frac{Cash}{Total\ Assets}$$

  *H1: As liquidity increases, the payout ratio increases*

- Pro

  This measures the profitability of a firm because firms that are more profitable are more likely to pay dividends.

  It is calculated as follows:

$$ROA = \frac{After\ tax\ operating}{Total\ Assets}$$

  *H2*: As *profitability increases, the payout ratio increases*

- Growth

  This measures the growth of an enterprise and it is calculated as a percentage of the sales over the last three years. There is a negative relationship with the payout ratio.

*H3*: As *growth increases, the payout ratio decreases*

- Risk

  This represents the volatility in sales over the last three years, calculated as the standard deviation of sales over the last three years.

  There is a negative relationship with the payout ratio.

  *H4*: As *the risk increases, the payout ratio decreases*

Aspects related to the size and maturity of enterprises were also considered.
In fact, larger and more mature companies are subject to constraints and, as a result, they will be more likely to pay dividends.

- Size

  Size is measured as the logarithm of sales.

$$Size = log\ (Sales)$$

  *H5*: *As the size increases, the payout ratio increases*

- Age

  Age is measured as the natural logarithm of the years since the company was founded.

$$Age = log\ (age)$$

*H6*: As *the age increases,* the *payout ratio increases*

Finally, they used industrial effects with dummy variables that reflect the sector to which the company belongs, using a classification based on the official codes of the Norwegian industry.

Below are the descriptive statistics, including the mean and the median in parentheses. On average, 27% of companies have a propensity to distribute dividends in a given year, measured through the variable dividend propensity, so the median of Norwegian companies has no tendency to pay dividends.

The average payout ratio, measured by dividends to earnings, is 20%, and, when they paid it accounts for 77% of earnings.

The shareholding is, on average, 72% when the majority shareholder can also be a family member with kinship up to the fourth degree, 62% up to the household and 60% if each owner is considered a separate nucleus.

*Table 12: Descriptive statistics*

| Characteristic | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | All | Payers |
|---|---|---|---|---|---|---|---|---|---|---|
| Dividend propensity | 0.239 (0.000) | 0.299 (0.000) | 0.252 (0.000) | 0.247 (0.000) | 0.256 (0.000) | 0.269 (0.000) | 0.288 (0.000) | 0.281 (0.000) | 0.266 (0.000) | 1.000 (1.000) |
| Dividends to earnings | 0.179 (0.000) | 0.219 (0.000) | 0.182 (0.000) | 0.189 (0.000) | 0.202 (0.000) | 0.211 (0.000) | 0.231 (0.000) | 0.229 (0.000) | 0.204 (0.000) | 0.770 (0.784) |
| Dividends to sales | 0.021 (0.000) | 0.024 (0.000) | 0.019 (0.000) | 0.019 (0.000) | 0.020 (0.000) | 0.021 (0.000) | 0.023 (0.000) | 0.023 (0.000) | 0.021 (0.000) | 0.078 (0.053) |
| Dividends to cash flow | 0.260 (0.000) | 0.328 (0.000) | 0.263 (0.000) | 0.233 (0.000) | 0.263 (0.000) | 0.308 (0.000) | 0.321 (0.000) | 0.333 (0.000) | 0.288 (0.000) | 1.264 (0.918) |
| Dividends to assets | 0.036 (0.000) | 0.044 (0.000) | 0.035 (0.000) | 0.033 (0.000) | 0.034 (0.000) | 0.036 (0.000) | 0.039 (0.000) | 0.038 (0.000) | 0.037 (0.000) | 0.138 (0.109) |
| Holding of largest owner, incl. extended family | 0.715 (0.670) | 0.723 (0.688) | 0.726 (0.700) | 0.726 (0.700) | 0.730 (0.700) | 0.731 (0.700) | 0.715 (0.700) | 0.717 (0.700) | 0.723 (0.700) | 0.738 (0.700) |
| Holding of largest owner, incl. nuclear family | 0.624 (0.640) | 0.627 (0.636) | 0.628 (0.630) | 0.629 (0.625) | 0.625 (0.618) | 0.625 (0.617) | 0.620 (0.607) | 0.606 (0.600) | 0.623 (0.620) | 0.613 (0.600) |
| Holding of largest owner, incl. separate owners | 0.602 (0.600) | 0.605 (0.600) | 0.605 (0.600) | 0.606 (0.600) | 0.604 (0.600) | 0.604 (0.600) | 0.602 (0.600) | 0.606 (0.600) | 0.604 (0.600) | 0.596 (0.600) |
| Majority owner in largest family | 0.749 (1.000) | 0.75 (1.000) | 0.744 (1.000) | 0.742 (1.000) | 0.732 (1.000) | 0.729 (1.000) | 0.739 (1.000) | 0.747 (1.000) | 0.742 (1.000) | 0.738 (1.000) |
| Liquidity | 0.260 (0.187) | 0.265 (0.201) | 0.264 (0.195) | 0.266 (0.196) | 0.264 (0.194) | 0.268 (0.200) | 0.272 (0.206) | 0.275 (0.209) | 0.267 (0.199) | 0.356 (0.328) |
| Profitability | 0.092 (0.087) | 0.099 (0.099) | 0.075 (0.080) | 0.059 (0.065) | 0.053 (0.061) | 0.064 (0.067) | 0.074 (0.072) | 0.068 (0.069) | 0.074 (0.075) | 0.188 (0.165) |
| Growth | 0.079 (0.063) | 0.093 (0.079) | 0.087 (0.074) | 0.043 (0.041) | 0.015 (0.016) | 0.022 (0.020) | 0.052 (0.038) | 0.051 (0.039) | 0.057 (0.046) | 0.089 (0.069) |
| Risk | 0.353 (0.249) | 0.337 (0.234) | 0.333 (0.229) | 0.333 (0.233) | 0.331 (0.229) | 0.319 (0.223) | 0.306 (0.212) | 0.298 (0.207) | 0.327 (0.227) | 0.259 (0.186) |
| Size | 14.387 (4.879) | 18.060 (6.272) | 18.665 (6.588) | 17.893 (6.443) | 18.716 (6.638) | 20.031 (7.121) | 20.778 (7.200) | 19.948 (7.294) | 18.464 (6.522) | 26.102 (11.364) |
| Age | 15.880 (13.000) | 16.280 (13.000) | 16.828 (14.000) | 17.213 (14.000) | 17.546 (14.000) | 17.293 (15.000) | 18.534 (16.000) | 18.919 (16.000) | 17.333 (14.000) | 18.557 (16.000) |
| n | 10,621 | 10,184 | 9,895 | 9,698 | 9,250 | 8,991 | 9,121 | 8,696 | 76,456 | 20,450 |

*Source: 0-1Berzins & al. (2017). Shereholder conflicts and dividends. Review of Finance, Volume 22, Issue 5, August 2018, pp. 1807–1840.*

The authors of the study initiated their analysis by dividing the enterprises into two large groups:

1. Low equity concentration companies
   Companies with a concentration between 50% and 60%.

2. High concentration companies
   Companies with a concentration between 90% and 99%.

In their study, they found that, in particular, low-concentration firms tend to pay more dividends than high-concentration firms, and these findings are consistent with the conflict reduction model: as concentration increases, dividends payouts decrease.
In reality, however, the differences in dividend payments can also be influenced by other factors that influence the decision of whether or not to divide dividends; for this reason, tests have been done to compare the differences in the control variables between the two groups, which showed that, on average, companies with low concentration are more liquid, profitable and young, despite the fact that there is little difference in profitability.
It is essential, therefore, to consider these variables in the model.
Moreover, since these are panel data, the authors studied the regressions year by year, with standard errors grouped at the company level and with the aggregate

sample estimated with fixed effects for the year, following the approach of Fama and Macbeth (1973)[122] and Petersen (2009)[123].

Below are the results of the regression**:**

*Table 13: Regression analysis results*

| Independent variable | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | Fama–MacBeth | Pooled |
|---|---|---|---|---|---|---|---|---|---|---|
| Ownership concentration | –0.169 (0.000) | –0.188 (0.000) | –0.180 (0.000) | –0.224 (0.000) | –0.183 (0.000) | –0.234 (0.000) | –0.194 (0.000) | –0.173 (0.000) | –0.193 (0.000) | –0.101 (0.000) |
| Liquidity | 0.170 (0.000) | 0.204 (0.000) | 0.226 (0.000) | 0.271 (0.000) | 0.297 (0.000) | 0.311 (0.000) | 0.301 (0.000) | 0.288 (0.000) | 0.259 (0.000) | 0.302 (0.000) |
| Profitability | 0.454 (0.000) | 0.547 (0.000) | 0.451 (0.000) | 0.520 (0.000) | 0.504 (0.000) | 0.574 (0.000) | 0.660 (0.000) | 0.661 (0.000) | 0.546 (0.000) | 0.499 (0.000) |
| Growth | –0.008 (0.625) | –0.026 (0.175) | –0.029 (0.119) | –0.018 (0.358) | –0.060 (0.005) | –0.063 (0.052) | –0.090 (0.002) | –0.100 (0.001) | –0.049 (0.019) | –0.087 (0.000) |
| Risk | –0.117 (0.000) | –0.130 (0.000) | –0.100 (0.000) | –0.092 (0.000) | –0.116 (0.000) | –0.110 (0.000) | –0.151 (0.000) | 0.123 (0.000) | –0.117 (0.000) | –0.061 (0.000) |
| Size | 0.021 (0.000) | 0.023 (0.000) | 0.018 (0.000) | 0.018 (0.000) | 0.017 (0.000) | 0.016 (0.000) | 0.016 (0.000) | 0.014 (0.000) | 0.018 (0.001) | 0.047 (0.000) |
| Age | –0.026 (0.000) | –0.025 (0.000) | –0.013 (0.032) | –0.001 (0.866) | 0.002 (0.742) | 0.021 (0.031) | 0.012 (0.096) | 0.015 (0.047) | –0.002 (0.845) | 0.014 (0.001) |
| $R^2$ | 0.292 | 0.352 | 0.319 | 0.321 | 0.319 | 0.345 | 0.353 | 0.343 | 0.156 | 0.157 |
| n | 10,621 | 10,184 | 9,895 | 9,698 | 9,250 | 8,991 | 9,121 | 8,696 | 76,456 | 76,456 |

*Source: 0-2Berzins & al. (2017). Shereholder conflicts and dividends. Review of Finance, Volume 22, Issue 5, August 2018, pp. 1807–1840.*

The p-values are shown in parentheses.

The table shows the estimates of regressions for the years examined, using the OLS method and the Fama-Macbeth approach on the year-by-year estimates and the collective approach with fixed effects from year to year. Standard errors are grouped at the enterprise level in both approaches.

In particular, it can be seen that the sign of the coefficient for concentration is negative in each year, so a negative relationship between the concentration of the company and the dividends is estimated.

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[122] Fama, E. F. and MacBeth, J. (1973) *Risk, return, and equilibrium: Empirical tests*. Journal of Political Economy 81, pp. 607–636.

[123] Petersen, M. A. (2009) *Estimating standard errors in finance data panels: Comparing approaches*. Review of Financial Studies (22),pp. 435–480.

In addition, it should be noted that the highest dividends are paid by larger, more mature enterprises that have more cash available, high profitability and low risk and growth; therefore, the control variables meet the forecasts.
Ultimately, their results support the conflict reduction model, according to which, the higher the potential for conflict, the more majority shareholders will attempt to reduce it by paying more dividends.

#### 6.1.1.1 The role of reputation

There are also other variables that can influence the decision of majority shareholders if distribute dividends or not. One of these is reputation, as only when a company has a solid reputation, will the majority shareholders be able to attract new investors.
Through reputation, that is, the situation in which the majority shareholders signal to the public that they undertake to not exploit the minority shareholder, the price of existing shares or new shares will rise.
The scholars introduced the theme of reputation into the model in two stages:

1. They used baseline model regression with only the control variables:

$$Div_{it} = \alpha + \beta_1 Liq_{it} + \beta_2 Pro_{it} + \beta_3 Growth_{it} + \beta_4 Risk_{it} + \beta_5 Size_{it} + \beta_6 Age_{it} + \varepsilon_{it}$$

   They performed cross-regressions for the period from 2006 to 2010, compared to the sample that includes the years up to 2013, and used the average residue for each company, which reflects if the remuneration is

high or low compared to variables that are not related to the concentration.

2. The second phase for the study of the influence of reputation considers the average residual size of the enterprise and the concentration from 2006 to 2010, for subsequent issues during the period 2011 to 2013, and introduces four measures on minority investment and a majority investment measure in these issues:

    1. Minority investment

       This is a dummy variable, which is 1 if investors owned more paid-up capital in 2013 than in 2010 and 0 otherwise.

    2. Growth in minority investment (GMI)

       It represents the change in the capital paid by minority shareholders from 2010 to 2013 divided by the total capital paid in 2010.

$$GMI = \frac{Tot\ min.paid\ in\ capital_{2013} - Tot\ min.paid\ in\ capital_{2010}}{Tot\ min.paid\ in\ capital_{2010}}$$

    3. Positive growth in minority investment

       This is the measure of investments greater than zero by minorities.

    4. New minority invests

This is a dummy variable that assumes the value of 1 if there are capital increases by minority shareholders between 2010 and 2014 and at least one new minority owner invests in 2013.

5. The majority invests more

   This is a dummy variable that assumes a value equal to 1 if the capital from the majority shareholders is greater in 2013 than in 2010.

Below is the result of the test that shows the differences between the two payout averages in the highest quintiles (Q5) and the lowest quintile (Q1), the value of the p-valuing of the test and the differences in parentheses in Panel A.
Panel B shows the results of the regressions for the period from 2006 to 2010.

*Table 14: Univariate and regression results*

Panel A: Univariate results

| | Payout quintile | | | *p*-value | | | | n | |
|---|---|---|---|---|---|---|---|---|---|
| Investor behavior | Q1 (lowest) | Q5 (highest) | Q5–Q1 | *t* test | Wilcoxon test | $Chi^2$ test | Fisher's exact test | A | B |
| 1. Minority invests more | 0.183 | 0.218 | 0.035 | (0.013) | (0.010) | (0.013) | (0.018) | 739 | 750 |
| 2. Growth in minority investment | 0.018 | 0.03 | 0.012 | (0.035) | (0.017) | | | 739 | 750 |
| 3. Positive growth in minority investment | 0.163 | 0.268 | 0.105 | (0.053) | (0.014) | | | 141 | 160 |
| 4. New minority invests | 0.342 | 0.375 | 0.033 | (0.035) | (0.017) | (0.038) | (0.027) | 739 | 750 |
| 5. Majority invests more | 0.268 | 0.268 | 0.000 | (0.997) | (0.498) | (0.469) | (0.521) | 739 | 750 |

Panel B: Regression results

| Independent variable | I: Minority invests more | II: Growth in minority investment | III: New minority invests |
|---|---|---|---|
| Average residual payout | 0.223 (0.001) | 0.016 (0.010) | 0.179 (0.002) |
| Ownership concentration | –1.508 (0.009) | –0.144 (0.010) | –0.339 (0.122) |
| $R^2$ | 0.110 | 0.080 | 0.050 |
| n | 3,596 | 3,596 | 3,596 |

*Source: 0-3Berzins & al. (2017). Shereholder conflicts and dividends. Review of Finance, Volume 22, Issue 5, August 2018, pp. 1807–1840.*

Estimates in Panel A indicate that companies in the higher quintile are more likely to receive larger minority investment and that average growth investment is higher.

Companies with higher residual margins also have higher investment from the minority group and are more likely to attract new minority investors.
In addition, the subscription of the majority shareholder to new holdings does not differ between the two quintiles of dividends.
These results suggest that above-average payout is associated with more frequent investments by minority and larger shareholders, but not with investments by majority shareholders. To understand if the shareholders behavior can be explained by agency conflicts, they also used the regression of equity investment for the period between 2011 and 2013, $inv$, which is related to the concentration from 2006 to 2010, *con,* and the average of the residual payout, $\bar{\varepsilon}$ :

$$Inv_i = \gamma + \theta_1 \bar{\varepsilon}_i + \theta_2 Con_i + \theta_i$$

The results in Panel B show that, with three measures of dividend investments, the residual payout of the past is positively correlated with the increase in measures related to minority investments, and, therefore, the concentration is inversely related to the likelihood that minority investments will increase.
The majority shareholders decide to distribute more dividends to ensure that minority shareholders invest more and continuously, building a relationship of trust with them.

#### 6.1.1.2 Alternative explaination

However, there are alternatives to these two findings, namely that dividends are paid to signal quality and not to create trust, or they are not paid to reduce conflict but to meet the liquidity needs of minority shareholders.

In particular, the authors found no significant relationship between the payment of dividends and the idea that companies use it to signal future profitability and/or with the idea of liquidity need.

In addition, the authors analysed reverse randomness since using observational and non-experimental data, this could be a problem.

To establish if the results would be affected by reverse randomness, they extracted the relation of the dependent variable, both with and without the control variables from the base model, and their results show that the dividends follow the concentration and not vice versa.

Having eliminated the problem of reverse randomness, the authors also studied the problem of financial constraints, as financial constraints could affect the concentration and distribution of dividends. However, even in this case, the results remained unchanged.

Finally, they tested the robustness of the model by examining whether their results depended on other factors, such as how the payout was measured and financial constraints, but the results remain independent of all these factors.

## 6.2 Data and Sample Selection

To analyse the relationship between the majority and minority shareholders and the role of the payout policy, the dataset kindly provided by Professor Laura Rondi,[124] which contains the information of 172 non-financial Italian listed companies from 2000 to 2017, was used.

[124] Rondi Laura (2021). University database

The following paragraphs show how the fundamental variables were selected.

### 6.2.1 Data Source

The data in the dataset was obtained from different sources. In particular, the data regarding the financial structure of the company, such as financial statements, dividends and stock exchange information, were collected from the annual documentation provided by MedioBanca.
The annual reports used are the following:

1. “Le principali Società”

   This document provides data on the sector to which the company belongs and provides the income statement, balance sheet data and number of employees for each firm, and even noted whether there had been discrepancies during the time period of the study, caused by, for example, mergers or acquisitions.

2. “Indici e Dati”

   This report provides information about gross unit dividends, price/earnings indices per share and also data on capital market valuation.

3. “Il Calepino dell’Azionista”

   This document provides information such as the industry, shareholding, board of directors and share capital, and also financial information relating to the consolidate balance sheet; income statement; the value of any dividends distributed; changes in capital and equity income; and

offers of shares, prices and quantities traded on the Italian stock exchange.

### 6.2.2 The sample

To achieve the purpose of the analysis, assumptions made about the variables are reported below.

Outliers were excluded from the model, which include companies with few observations or with negative values for assets, debts, equity, sales and dividends; companies subject to unevenness, such as those that had been subject to large acquisitions or disposals, which have made the time segments less than four years; companies with less than four years of dividend data; and, finally, public utilities were excluded because they are partially controlled by the government. [125]. The final dataset consisted of an unbalanced panel of non-financial Italian listed companies, for the time period from 2000 to 2017.

The following section describes the variables used in the analysis, while table 15 shows the summary of the variables used in the analysis.

[125] Graziano and Rondi (2020). Product Market Competition, Executive Compensation, and CEO Family Ties. Review of Industrial Organization. 58, pp.357–397

*Table 15: Variables description*

| Variable | Description |
|---|---|
| **ROE** | Return On Equity - Net income divided by equity |
| **ROA** | Return On Asset - EBITDA divided by assets |
| **Leverage** | Financial leverage - Financial debts divided by assets |
| **Size** | Company size- ln(sales) |
| **Age** | Company Age- ln (Age) |
| **Growth** | Company Growth - Percentage of the sales over the last three years |
| **MTB** | Market To Book- Market capitalization of equity divided by equity book value |
| **QTobin** | Qtobin- (Total assets - equity + market capitalization of equity) divided by Total assets |
| **Risksales** | Risk related to sales- variability of sales in the past three years |
| **RiskROA** | Risk releted to Return On Asset- variability of ROA |
| **CR** | Current Ratio- Current assets divided by current liabilities |
| **ICR** | Interest Coverage Ratio- EBITDA divided by Financial expenses |
| **Stateown** | Dummy variable equal to 1 if company is public, 0 otherwise |
| **Family50** | Dummy variable equal to 1 if company has more than 50% control, 0 otherwise |
| **Family30** | Dummy variable equal to 1 if firm has more than 30% control, 0 otherwise |
| **Famceo** | Dummy variable equal to 1 if CEO is related to majority shareholder, 0 otherwise |
| **Controlling share** | Percentage of share held by majority shareholder |
| **Inst_share** | Percentage of share held by institutional investors |
| **Dual** | Dummy variable equal to 1 if company has dual voting structure, 0 otherwise |
| **patti_sind** | Dummy variable equal to 1 if there are shareholders agreements or coalitions, 0 otherwise |
| **CEO_Chair** | Dummy variable equal to 1 if the CEO is also the chair of the board of directions, 0 otherwise |
| **Tenure** | Years the CEO has been in place |
| **Indep_Rem_ committee** | Percentage of independent directors in the remuneration committee |
| **STAR** | Dummy variable equal to 1 if company is listed in STAR segment, 0 otherwise |
| **DPR** | Dividend payout ratio- Dividend divided by net income |
| **StockOp_Dum** | Dummy variable equal to 1 if company distributes stock option, 0 otherwise |
| **Div/sale** | Payout measure- Dividedns divided by sales |
| **Div/mkcap** | Payout measure -Dividends divided by market capital |
| **Div** | Dummy variable equal to 1 if company distribute dividends, 0 otherwise. |
| **Typer** | Dummy variable equal to 1 if company produces differentiated products, 0 otherwise |
| **ROA_industry** | Industry Return on Asset |

*Source: 0-4 Personal processing*

### 6.2.3 The variables

The variables in the dataset can be divided into four categories, based on their main characteristics:

1. Financial and performance characteristics
2. Corporate governance and ownership characteristics
3. Payout policy characteristics
4. Industry characteristics

#### 6.2.3.1 Financial and performance characteristics

This section contains an analysis of all the variables in the database that reflect on the financial characteristics and the performance of the companies.
There are eight financial or performance determinants most cited in the literature that influence the decision for the payment of dividends: Performance, debt ratio, growth, investment opportunity, size, age, risk and, finally, liquidity.

##### *6.2.3.1.1 Performance*

Two key indices were used to measure performance during the analysis: return on assets and return on equity.
Fama and French (2001),[126] identified the profitability of the company as a factor in the decision to distribute dividends.

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[126] Fama and Franch (2001). *Disappearing Dividends: Changing Firm Characteristics or Lower Propensity to Pay?*. Journal of Financial Economics, 60, pp. 3-43

In particular, they believe that a highly profitable company wants to reward its shareholders for taking the risk.

In fact, also DeAngelo et al. (2006),[127] also argue that companies with higher profitability will be more likely to pay greater dividends.

The variables used for the calculation of return on assets and return on equity are as follows:

- valadd

  This represents the added value of the company.

- labocst

  This represents the labour cost of the company.

- Totalassets

  This is the value in the consolidated balance sheet of total assets provided by MedioBanca..

- ROA

  The return on assets was calculated with the above variables, as the ratio of the difference between value added, labour cost, that represents the EBITDA, *Earnings Before Interest, Taxes, Depreciation and Amortisation,* and total assets.

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[127] DeAngelo et al (2006). *Dividend Policy and the Earned/Contributed Capital. Journal of Financial Economics*. 81(2), pp.227-254

It is an indicator of the profitability of a company's investments and should be compared with that of similar companies in the same industry to enable an analysis of both internal factors, such as the efficiency of the company, and external factors and the market conditions that influence the performance of company resources.

It is often appropriate to evaluate the ROA with the ROE, the return on equity, which will be calculated later.

$$ROA = \frac{EBITDA}{Total\ assets}$$

- Ris_az

  This represents the net profit attributable to the shareholders of the company in the consolidated financial statements, extracted from the consolidated income statement of the companies in the reports provided by Mediobanca.

- Equity

  This represents the value of the equity of the company with the book value, obtained from the data provided by Mediobanca.

- ROE

  This represents the return on equity, obtained as the net income divided by equity.

  It is also prudent in this case to compare two companies in the same sector to understand which is more profitable.

Return on equity indicates how profitable the capital of a company is, which provides important information for the company's shareholders.
In this analysis, the ROE will initially be used as a measure of profitability, as it captures the prospect of shareholder returns better than ROA, but the results will be studied again with replacing ROA in regressions with ROE.[128]
Higher ROE is expected to be accompanied by higher dividends.

$$ROE = \frac{Net\ income}{Equity}$$

*6.2.3.1.2 Debt ratio*

Debt may affect not only the ability of an undertaking to use liquidity in the payment of certain obligations, such as interest, but also limit other payments, such as dividends; it is therefore expected that, if this ratio increases, the dividend payments of a company will be lower. For this reason, it is considered the measure of the debt ratio, since it is an indication of the ability of the company to meet its obligations.
In this analysis, the leverage ratio used is debt to asset.

- Debtot

[128] Gambacorta et al. (2020). *Low price-to-book ratios and bank dividend payout policies*. Bank for international settlements

This variable represents the total value of financial debts, short-term and medium/long-term, and the data was extrapolated from the consolidated balance sheet provided by Mediobanca.

- Leverage

  The variable relative to the indebtedness of the enterprise was added to the variables debtot and totalassets, to form an idea of the portion of the assets of the enterprise that are financed by indebtedness.

  If the ratio is less than 0.5, many assets are financed by equity, but, if it is greater than 0.5, the assets are financed by financial debt.

  If a leverage value is greater than 1, the financial debt of a firm is greater than the value of its assets.

  This variable in combination with others can provide insight into the risk of the company; in fact, a ratio of less than 1 can be considered relatively safe, but a ratio of greater than 1 already indicates a certain level of risk for the enterprise.

  Comparison of the debt-to-equity ratio of a given company to those of similar companies provides a general indication of the credit and financial risk of the company.

$$Leverage = \frac{Total\ finacial\ debts}{Total\ assets}$$

*6.2.3.1.3 Size and Age*

Fama and French (2001),[129] identified the size and maturity of a company as a determining variable in the decision to distribute dividends.

In fact, the larger and more mature a company, the more stable its profits, and, as a result, it will also be able to maintain a stable dividend policy; for this reason, variables related to the size and the age of the enterprise are included in the model. Larger and older companies are less financially constrained, and less constrained companies are more likely to pay dividends, thus, also reducing risk.[130]

The variables that express the size and age of the company are as follows:

- Sales

  This variable represents the total sales of a company, and the data were extrapolated from the consolidated income statement of each company provided by Mediobanca.

- Size

  For a variable that expresses the size of the enterprise, the natural logarithm of the sales, separated from the effect of inflation, was used.[131]

- Age

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[129] Fama and Franch (2001). *Disappearing Dividends: Changing Firm Characteristics or Lower Propensity to Pay?*. Journal of Financial Economics, 60, pp. 3-43

[130] Hadlock e Pierce (2010). *New Evidence on Measuring Financial Constraints: Moving Beyond the KZ Index.* Review of Financial Studies. 23(5), pp.1909-1940

[131] Berzins & al. (2017). Shereholder conflicts and dividends. Review of Finance, Volume 22, Issue 5, August 2018, pp. 1807–1840.

The age is the number of years since the company was founded. It is probable that, the more years that pass, the greater the competences of the company, and, therefore, it is expected that this variable is an indicator of business performance and a measure of the maturity of the enterprise, which can influence decisions on dividend distribution.

In this case, the natural logarithm of age was calculated to refer to the maturity of the company.[132]

*6.2.3.1.4 Growth*

Variables related to growth must be included to assess a company's decision to distribute dividends. When the growth of a firm decrease, the amount of available cash increases and can be paid out as dividends.

Following the Berzins et al. (2017) approach, [133] growth is calculated as the percentage of the sales over the last three years. There is a negative relationship with the payout ratio. Therefore, companies with higher growth opportunities usually have lower dividend payments.

*6.2.3.1.5 Investment opportunity*

Variables related to investment opportunity are also important. The Tobin Q would normally be the preferred proxy for investment opportunities; alternatively, the market-to-book ratio is a good proxy for Qtobin.

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[132] *Ibidem*
[133] *Ibidem*

- Mktcap

  This variable represents the value of the market capitalization of equity, that is, the total value of all the shares in circulation. This figure reflects the market value of equity, which is obtained by multiplying the share price by the number of shares. In most cases, this differs from the book value of the equity, which represents the net amount of assets carried less the liabilities.

- MTB

  The market-to-book ratio, MTB, represents the relationship between the market capitalization of equity and equity book value.

  This relationship is fundamental because, by combining the two preceding variables (Mktcap and equity) into a single, it is possible to obtain information about one's securities.

  In fact, a low ratio of less than 1 could mean that the security is undervalued, meaning that the market gives the company a lower value than the accounting value, while a ratio of greater than 1 means that the security is overvalued by the market, and, therefore, investors are willing to pay more than their equity.

  This would indicate, for example, that the company has good future opportunities, and, for that reason, investors are willing to pay more.

  Fama and French (2001),[134] identified a relationship between a decision to distribute dividends and the market-to-book ratio.

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[134] Fama and Franch (2001). D*isappearing Dividends: Changing Firm Characteristics or Lower Propensity to Pay?*. Journal of Financial Economics, 60, pp. 3-43

In fact, they found that companies with a high market-to-book ratio are growing companies with a lower propensity to distribute dividends.

On the contrary, companies with low market-to-book ratios tend to distribute dividends to indicate that the company is undervalued.[135]

$$MTB = \frac{Market\ capitalization\ of\ equity}{equity\ book\ value}$$

- Qtobin

  This variable provides insight into how a company is valued by the market, by using its real and intangible assets.

  The numerator expresses the market value of a company's assets, while the book value is indicated in the denominator.

  A ratio greater than 1 indicates a strong propensity to expand, while a ratio of less than 1 indicates a disincentive for businesses to expand.

  There is a link between this relationship and a decision by companies to distribute dividends; in fact, the greater the present and future opportunities, the less a company will distribute dividends, as it would concentrate its resources in investments; while, with low investment opportunities, a firm will pay higher dividends to ensure that shareholders choose how to diversify their investments.[136]

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[135] Stein (2003). *Agency, information, and corporate investment*. Handbook of the Economics of Finance, 1(2), pp- 111-165

[136] Langsen (1988). *Dividend Payout Policy Related to Tobin's Q-Ratio*. Financial management, pp.11-13

Qtobin is used to obtain more information on the future possibilities of a company to understand whether an asset is overvalued or undervalued and predict whether the capital investment will increase or decrease.

$$Qtobin = \frac{Total\ assets\ -\ equity\ +\ market\ capitalization\ of\ equity}{Total\ assets}$$

*6.2.3.1.6 Risk*

It is also important to assess the risk and the volatility of a company. Risk is measured by sales volatility during the past three years, and risk and dividends are expected to be negatively related. When dividends are paid from permanent earnings,[137] companies with riskier earnings, on the other hand, will try to pay lower dividends.[138]

The risk, however, can also be evaluated as the standard deviation of the return on asset.

The risks measures are as following:

- Risksales

[137] Lintner, J. (1956). *Distribution of income of corporations among dividends, retained earnings, and taxes*. The American Economic Review, *46(2),* pp- 97-113

[138] Berzins & al. (2017). Shereholder conflicts and dividends. Review of Finance, Volume 22, Issue 5, August 2018, pp. 1807–1840.

Risksales represents the standard deviation in sales growth over the last three years.

- RiskROA

  Risksales represents the standard deviation of the return on asset.

*6.2.3.1.7 Liquidity*

Finally, liquidity information is essential to assess the liquidity status of the company and therefore whether it can meet its obligations, in fact firms with more liquidity, should pay more dividends because of low transaction costs.[139]
The two liquidity measures used in the analysis are the following:

- CR

  The current ratio represents the ratio of current assets (inventory, cash, trade receivables, short-term financial assets and other short-term assets) to current liabilities (short-term financial debts, trade debts and other short-term liabilities).

  This relationship defines an enterprise's ability to meet its current liabilities through its current assets.

$$CR = \frac{Current\ assets}{Current\ liabilities}$$

  In particular:

[139] *Ibidem*

- CR >1

  This situation indicates that current assets are greater than current liabilities; therefore, enterprises have a good financial situation to cover future exits.

- CR <1

  Indicates that current assets are lower than current liabilities; therefore, current revenues are not sufficient to cover current outflows.

- CR =1

  Current assets are equal to current liabilities, so the enterprise maintains a precarious situation.

Furthermore, when the current ratio is too high, it means that the company is not exploiting its current assets as effectively as possible.

It is essential to evaluate the index by comparing it with the average results of the sector and for different periods of time, to assess whether the company exploits its liquid resources well or not.

- ICR

  The interest coverage ratio is defined as the ratio between EBITDA, *Earnings Before Interest, Taxes, Depreciation and Amortisation*, so the difference between value added and labour costs, and a company's financial expenses.

  In some cases, an alternative formula is used that instead considers EBITDA, EBIT, *Earnings Before Interest*, which, being separated from the effect of depreciation, that is only an accounting cost, would

underestimate the real cash flow that the company can rely on, even if it is dangerous for companies to meet financial expenses through cash flows generated by depreciation.

$$ICR = \frac{EBITDA\ (or\ EBIT)}{Financial\ expenses}$$

In particular:

- ICR >1

  The income that the enterprise generates through its operating activity can reimburse the financial expenses deriving from the capital that has been acquired in order to produce it.

  Usually, a value greater than 5 is satisfactory, that is the enterprise is not so much indebted regarding its ability to generate EBITDA with its operating part.[140]

- ICR <1

  The income that the enterprise generates through its operating activity cannot reimburse the financial expenses deriving from the capital that has been acquired in order to produce it.

- ICR =1

[140] Scellato (2019). Analisi del capitale dell'impresa. Polytechnic of Turin. University notes

The income that the enterprise generates through the own operating activity succeeds just to repay the expenses financial deriving from the capital that is acquired in order to produce it.

### 6.2.3.2 Corporate governance and ownership characteristics

This section includes the variables that refer to the characteristics of corporate governance and ownership, which are fundamental to the study.
First, it is beneficial to have information on the type of company, whether it is public or private.
In fact, Berzins et al. (2017), [141] analyse private versus public enterprises for three reasons:

1. The principal-principal problem is more frequent and probable in companies controlled by majority shareholders.

2. Control by majority shareholders is more common in private than public companies.

These two motivations are strong incentives for the majority shareholder to appropriate control of the company.

[141] Berzins & al. (2017). Shereholder conflicts and dividends. Review of Finance, Volume 22, Issue 5, August 2018, pp. 1807–1840.

3. In private companies, there is a lower level of separation between ownership and control.

Finally, this lower level of separation between ownership and control reduces the need for monitoring.[142]

For these reasons, the following variables are referenced:

- Stateown
  Dummy variable that is 1 if the company is public and 0 otherwise.
  If it is 0, it means that the company is private.

Furthermore, since family firms behave differently to non-family firms, it is necessary to assess whether companies are in the first and second evaluations.
A family firm is identified by the identity and equity share of shareholders with at least 2% voting shares, according to the data published by CONSOB.
It will be even considered a lower threshold of 30% to do for a robustness analysis.[143]
The variables refer to the family are as follows:

- Family50

[142] *Ibidem*
[143] Graziano and Rondi (2020). *Product Market Competition, Executive Compensation, and CEO Family Ties.* Review of Industrial Organization. 58, pp.357–397

This is a dummy variable with a value of 1 if a firm has higher than 50% control and 0 otherwise.

- Family30
  This is a dummy variable with a value of 1 if a firm has higher than 30% control and 0 otherwise.

- Famceo
  This is a dummy variable that has a value of 1 if the CEO is related to the majority shareholder and 0 otherwise.

In addition, according to the literature on corporate governance, it is necessary to include variables that, if omitted, could bias the relationship between the variables.
These variables refer to the probability of the majority shareholder to separate ownership from control.

- Controllingshare
  This represents the percentage of the shares held by the majority shareholder.
  This figure is particularly important because it represents how much power the majority shareholder has and whether it is an absolute majority, more than 50% +1 of the shares, or a relative majority, less than 50% +1, of the shares.

- Inst_share

This is the sum of the equity held by institutional investors with more than 2% of the shares.

- Dual

  This is a dummy variable that assumes a value of 1 if a company has a dual voting structure and 0 otherwise.

- patti_sind

  It is a dummy variable with a value of 1 if there are voting pacts or coalitions and 0 otherwise.

  Shareholder's agreements or coalitions are instruments that separate ownership from control and facilitate the expropriation of minority shareholders.

- CEO_Chair

  This variable is a dummy with a value of 1 if the chairperson of the board of directors is also the CEO and 0 otherwise, and this represents the concentration of managerial power and the potential for the expropriation of minority shareholders.[144]

- Tenure

[144] Adams et al. (2005). *Powerful CEOs and Their Impact on Corporate Performance*. Review of Financial Studies 18(4), pp.1403-1432

This variable represents the years the CEO has been in place, and often a long period of time means that the CEO has more internal power, and, therefore, there is a greater probability of expropriating the minority shareholders.[145]

- Tenuresquared

  This variable considers a non-linear relationship for tenure, since power can grow proportionally with time.[146]

The number of independent directors on the remuneration committee is another governance mechanism that is relevant to limiting the discretion of the CEO's power.

In fact, independent directors are not strictly representatives for the minority shareholders, but they are implicitly, because they are expected to look after the interests of all the shareholders of the company. Therefore, they are an instrument for monitoring and to apply pressure on management in defence of the interests of the company and, implicitly, of minority shareholders. However, in theory, it must also be considered that these directors are remunerated by the company and have less information, and, for this reason, opportunistic behaviour may prevail to ensure that their appointment is reconfirmed.

The variables related to this category are:

- Remun_ind

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[145] Graziano and Rondi (2020). *Product Market Competition, Executive Compensation, and CEO Family Ties.* Review of Industrial Organization. 58, pp.357–397

[146] *Ibidem*

This variable represents the number of independent directors who are on the remuneration committee.

- Remun_member

  This variable represents the number of directors who are on the remuneration committee.

- Indep_Rem_comittee

  This variable is obtained as the ratio of the number of independent directors who are on the remuneration committee to the total number of directors on the committee.

In addition, it should be considered that many companies are in a special segment known as STAR (*Segmento titoli con alti requisiti*), the securities segment with high requirements, which requires greater transparency on their part. Therefore, it is expected that, in these companies, the opportunistic behavior of majority shareholders towards minority shareholders is limited compared to those in firms who are not part of it.
In addition, in this segment, representation of minority shareholders is required, which ensures greater protection.

- STAR

  This is a dummy variable that assumes a value of 1 if the company is listed in the STAR segment and 0 otherwise.

### 6.2.3.3 Payout characteristics

The variables that represent the payout characteristics in the database are as follows:

- Dividends

  This variable represents the gross value of the dividends, and the data was extrapolated from the annual consolidated statement provided by MedioBanca.

- DPR

  This is calculated as the ratio of gross dividends to net income and it represents the dividend payout ratio.

$$DPR = \frac{Dividends}{Net\ income}$$

  *Pay-out ratios are set to 100% if they are negative due to negative earnings. Pay-out ratios are also set to 100% if firms pay more than 100% of their earnings*.[147]

- StockOp_Dum

[147] Berzins & al. (2017). Shereholder conflicts and dividends. Review of Finance, Volume 22, Issue 5, August 2018, pp. 1807–1840.

This variable related to the decision of a firm to distribute stock options was inserted, and it is a dummy variable that assumes a value equal to 1 if a firm decides to distribute stock options and 0 otherwise.

Information on stock options is available from 2005 and it is assumed that, *once the stock option plan is announced, the company can no longer cancel it*.[148]

Following Faccio et al. (2001) approach,[149] in order to avoid misinterpreting the results due to distortions deriving from accounting practices that could be manipulated by the majority shareholders other measures of the payout ratio are considered in the analysis:

- Div/ sale

  Ratio of dividends to sales, considering net sales

$$Div/sale = \frac{Dividends}{Sales}$$

- Div/mkcap

  Ratio between dividends and market capitalization

[148] Graziano and Rondi (2020). *Product Market Competition, Executive Compensation, and CEO Family Ties.* Review of Industrial Organization. 58, pp.357–397

[149] Faccio & al (2001). Dividends and Expropriation. American Economic Review. 91(1), pp 54-78

$$Div/mkcap = \frac{Dividends}{market\ cap}$$

Finally, the dummy variable, *Div*, has been added, which assumes a value of 1 when the enterprise pays dividends and 0 otherwise.

#### 6.2.3.4 Industry characteristics

Information on the sector is necessary to make comparisons on the size of the company and its development, and the following variables will be used:

- Settore_mediobanca

  This variable identifies the sector of each company and the year of observation of the data provided by MedioBanca.

- Typer

  This is a dummy variable with a value of 1 if an enterprise produces differentiated products that require considerable investment in research and development and/or advertising expenditure.

- ROA_industry

  In addition, the industry variable for ROA was added, with the formula used before for the return on asset with the sector data for a benchmark on the measure of the company's performance.

In the next paragraph the descriptive statistics of the variables are shown.

## 6.3 Descriptive evidence

In order to have an idea of the distribution of the data, the descriptive statistics of the selected sample are carried out.

In general, analysing the main data shown by the descriptive statistics, there is a prevalence of family businesses; in fact, 63% of the businesses are family businesses (considering a family when the owner owns 50%+1 of the businesses), presenting also an average age of 59 years.

From the point of view of business performance, the ROE is higher than 0, by about 9%, indicating that businesses, on average, have managed to generate a good level of return on their investments. In addition, the average ROA, of about 10%, is higher than the industry average (7%); therefore, in general, companies have a higher level of performance than the industry average.

Finally, the average market value of the companies is 1.3, which means that on average the companies have a higher market value than the value of the assets.In addition, the market to book ratio, which is a good proxy for the Qtobin measure also averages over 1, 1.9, which means that the market values firms higher than their book value.

Analysing the structure of the companies, the evidence shows that 32% of the companies adopt dual voting structures and 33% of the companies adopt shareholders' agreements or coalitions, and approximately 60% of the companies have independent directors on the remuneration committee.

Furthermore, 36% of the companies are listed in the high-ranking segment and 46% of the companies are active in R&D-intensive sectors.

Analysing the data on dividend policy, the percentage of dividends distributed to net income is on average 61%, while it is only 2.4% in relation to market capitalization and 3% in relation to sales.
Finally, more than half of the companies, 87%, distribute dividends.

*Table 16: All firms*

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| Div | 1,605 | .8728972 | .3331919 | 0 | 1 |
| ROE | 1,605 | .094191 | .0952048 | 0 | .8254132 |
| ROA | 1,605 | .0982407 | .0657341 | -.1615812 | .520116 |
| Leverage | 1,605 | .2752013 | .1480143 | 0 | .8320924 |
| Size | 1,605 | 13.19974 | 1.607298 | 8.808967 | 18.66143 |
| Age | 1,605 | 58.84673 | 40.75661 | 0 | 271 |
| MTB | 1,605 | 1.907219 | 1.828776 | 0 | 17.7698 |
| Qtobin | 1,605 | 1.346191 | .7861468 | .2814709 | 8.713131 |
| CR | 1,605 | 1.639249 | 1.185368 | .0579378 | 20.66862 |
| ICR | 1,605 | 17.75251 | 96.07707 | -48.61645 | 3182.833 |
| controllin~e | 1,605 | 52.16925 | 18.0617 | 0 | 99.484 |
| inst_share | 1,557 | 3.819974 | 5.311183 | 0 | 44.449 |
| DPR | 1,605 | .61398 | .6866095 | 0 | 11.6 |
| Divsales | 1,605 | .0304083 | .0631755 | 0 | 1.268527 |
| Divmktcap | 1,605 | .0242963 | .0377554 | 0 | 1.096909 |
| Ind_Rem_co~e | 1,605 | .5993562 | .3677456 | 0 | 1 |
| ROA_Industry | 1,605 | .0732157 | .0330837 | -.0089302 | .177762 |
| family50 | 1,605 | .6323988 | .4823023 | 0 | 1 |
| family30 | 1,605 | .7152648 | .4514289 | 0 | 1 |
| dual | 1,577 | .3170577 | .4654777 | 0 | 1 |
| tenure | 1,588 | 8.11272 | 7.16283 | 1 | 40 |
| typer | 1,605 | .4566978 | .4982766 | 0 | 1 |
| StockOp_Dum | 1,561 | .3183857 | .4659993 | 0 | 1 |
| star | 1,605 | .3595016 | .4800039 | 0 | 1 |
| CEO_Chair | 1,604 | .3048628 | .4604929 | 0 | 1 |
| patti_sind | 1,605 | .3327103 | .4713306 | 0 | 1 |
| RiskROA | 1,605 | .0298347 | .0237296 | 0 | .1821334 |
| Growth | 1,358 | .2203173 | 2.892457 | -.8375057 | 80.51637 |

Considering only public enterprises, so using the option in which the stateown variable assumes a value of 1, the controlling share of the enterprises is about 39%, while institutional investors hold a share of about 2.35%. In this case, unlike when all the companies in the sample were considered, the value of ROE and ROA remained almost stable. Furthermore, only 5% of the companies are part of

the STAR segment, in contrast to before when the percentage was much higher (36%).

Another big difference is found between the share of distributed payout in relation to net income, which in this case assumes quite high values on average.

According to the descriptive statistics in the table, public enterprises distribute more dividends than before in relation to net income, while the share in relation to sales and capital market remains almost stable.

Nearly all public enterprises distribute dividends, in particular 96% of the enterprises.

.

*Table 17:Public firms*

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| Div | 225 | .9555556 | .2065399 | 0 | 1 |
| ROE | 225 | .0988234 | .0665632 | 0 | .3812636 |
| ROA | 225 | .1070202 | .0634433 | .0247979 | .520116 |
| Leverage | 225 | .317097 | .1397133 | 0 | .6312267 |
| Size | 225 | 14.69646 | 2.066216 | 10.0478 | 18.66143 |
| Age | 225 | 51.24 | 37.98149 | 0 | 140 |
| MTB | 225 | 1.607565 | 1.016908 | 0 | 6.155448 |
| Qtobin | 225 | 1.274376 | .7888311 | .6363243 | 8.713131 |
| CR | 225 | 1.004323 | .3455882 | .2680566 | 2.141714 |
| ICR | 225 | 24.7481 | 94.96552 | 0 | 1145.87 |
| controllin~e | 225 | 38.73289 | 14.8985 | 0 | 69.193 |
| inst_share | 224 | 2.355531 | 3.341156 | 0 | 18.929 |
| DPR | 225 | .7434023 | .8411299 | 0 | 9.800063 |
| Divsales | 225 | .0648194 | .1149885 | 0 | 1.268527 |
| Divmktcap | 225 | .0452167 | .0767736 | 0 | 1.096909 |
| Ind_Rem_co~e | 225 | .7295556 | .3232697 | 0 | 1 |
| ROA_Industry | 225 | .0839544 | .0316069 | .0035095 | .177762 |
| family50 | 225 | 0 | 0 | 0 | 0 |
| family30 | 225 | 0 | 0 | 0 | 0 |
| dual | 224 | .2678571 | .4438346 | 0 | 1 |
| tenure | 224 | 4.022321 | 2.972888 | 1 | 14 |
| typer | 225 | .3066667 | .4621379 | 0 | 1 |
| StockOp_Dum | 225 | .32 | .4675162 | 0 | 1 |
| star | 225 | .0533333 | .2251983 | 0 | 1 |
| CEO_Chair | 225 | .1555556 | .3632416 | 0 | 1 |
| patti_sind | 225 | .3866667 | .488072 | 0 | 1 |
| RiskROA | 225 | .0234028 | .0278559 | 0 | .1460203 |
| Growth | 191 | .1697179 | .3868741 | -.4934219 | 2.677398 |

Shifting the focus to private businesses and analysing the major differences between family and non-family businesses, which for simplicity will now be referred to as family or non-family businesses, implying that they refer to private businesses, in family businesses the share of control is about 62% while for non-family businesses this percentage drops to about 34%.

Examining the business performance, the value of ROE and ROA are slightly higher in family firms, 9.6% and 9.8% respectively, than in non-family firms, 8.7% and 9.4% respectively, but that non-family firms are larger in size.

Regarding the market valuation of the firm, the value of family firms would seem to be higher, having on average a higher market to book ratio and Qtobin, respectively 2 and 1.4 in family firms and 1.7 and 1.3 in non-family firms.

Moreover, family firms, on average, distribute more dividends than non-family firms.

In fact, family firms distribute 61% of dividends on net income, compared to 55% for non-family firms; 2.6% on sales, compared to 2.2% for non-family firms; and 2.2% on market capitalisation, compared to 1.8% for non-family firms.

On average, family businesses are more involved in the dual system, with 34%, compared to 28% for non-family businesses; in these businesses the CEO stays in charge for more years, due to family reasons, where there is less preference for an external CEO and there is a lower percentage of union pacts or collusion than in non-family businesses.

Moreover, there are fewer family firms participating in stock options than in non-family firms.

Family firms, however, due to their rigidity, such as keeping the CEO a family member, have to deal with a lower growth rate at approximately 9% compared to 61% for non-family firms.

*Table 18: Private firms*

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| Div | 1,380 | .8594203 | .3477135 | 0 | 1 |
| ROE | 1,380 | .0934358 | .0990912 | 0 | .8254132 |
| ROA | 1,380 | .0968093 | .0660117 | -.1615812 | .4011189 |
| Leverage | 1,380 | .2683705 | .1482532 | 0 | .8320924 |
| Size | 1,380 | 12.95571 | 1.373439 | 8.808967 | 17.25288 |
| Age | 1,380 | 60.08696 | 41.0709 | 1 | 271 |
| MTB | 1,380 | 1.956076 | 1.924861 | 0 | 17.7698 |
| Qtobin | 1,380 | 1.357899 | .7853722 | .2814709 | 7.767028 |
| CR | 1,380 | 1.74277 | 1.240345 | .0579378 | 20.66862 |
| ICR | 1,380 | 16.61193 | 96.24294 | -48.61645 | 3182.833 |
| controllin~e | 1,380 | 54.35996 | 17.58233 | 0 | 99.484 |
| inst_share | 1,333 | 4.066062 | 5.537352 | 0 | 44.449 |
| DPR | 1,380 | .5928786 | .6559345 | 0 | 11.6 |
| Divsales | 1,380 | .0247978 | .0476429 | 0 | .9259529 |
| Divmktcap | 1,380 | .0208853 | .0248509 | 0 | .41501 |
| Ind_Rem_co~e | 1,380 | .578128 | .3702841 | 0 | 1 |
| ROA_Industry | 1,380 | .0714649 | .0329994 | -.0089302 | .177762 |
| family50 | 1,380 | .7355072 | .4412226 | 0 | 1 |
| family30 | 1,380 | .8318841 | .3741048 | 0 | 1 |
| dual | 1,353 | .3252033 | .468624 | 0 | 1 |
| tenure | 1,364 | 8.784457 | 7.422311 | 1 | 40 |
| typer | 1,380 | .4811594 | .499826 | 0 | 1 |
| StockOp_Dum | 1,336 | .3181138 | .4659183 | 0 | 1 |
| star | 1,380 | .4094203 | .4919051 | 0 | 1 |
| CEO_Chair | 1,379 | .3292241 | .4701019 | 0 | 1 |
| patti_sind | 1,380 | .323913 | .4681369 | 0 | 1 |
| RiskROA | 1,380 | .0308834 | .022827 | 0 | .1821334 |
| Growth | 1,167 | .2285988 | 3.116392 | -.8375057 | 80.51637 |

*Table 19: No family private firms*

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| Div | 365 | .7808219 | .4142574 | 0 | 1 |
| ROE | 365 | .0869626 | .1071894 | 0 | .7797751 |
| ROA | 365 | .0937461 | .0672941 | -.1615812 | .4011189 |
| Leverage | 365 | .2652298 | .158413 | .0002112 | .643046 |
| Size | 365 | 13.41151 | 1.679115 | 8.808967 | 17.25288 |
| Age | 365 | 59.09863 | 43.48255 | 2 | 170 |
| MTB | 365 | 1.743357 | 1.754246 | 0 | 15.76731 |
| Qtobin | 365 | 1.280703 | .7651438 | .2814709 | 6.519207 |
| CR | 365 | 1.811966 | 1.854479 | .1462005 | 20.66862 |
| ICR | 365 | 11.0221 | 23.05351 | -48.61645 | 224.4762 |
| controllin~e | 365 | 33.86979 | 20.50704 | 0 | 99.484 |
| inst_share | 326 | 6.746325 | 7.46073 | 0 | 44.449 |
| DPR | 365 | .5541455 | .5406317 | 0 | 5.130484 |
| Divsales | 365 | .0219478 | .061474 | 0 | .9259529 |
| Divmktcap | 365 | .0179295 | .0317278 | 0 | .41501 |
| Ind_Rem_co~e | 365 | .5550685 | .364229 | 0 | 1 |
| ROA_Industry | 365 | .0740879 | .0323605 | 0 | .177762 |
| family50 | 365 | 0 | 0 | 0 | 0 |
| family30 | 365 | .3643836 | .4819175 | 0 | 1 |
| dual | 340 | .2764706 | .4479115 | 0 | 1 |
| tenure | 349 | 7 | 5.677137 | 1 | 30 |
| typer | 365 | .4767123 | .500143 | 0 | 1 |
| StockOp_Dum | 343 | .3906706 | .4886135 | 0 | 1 |
| star | 365 | .2849315 | .4520014 | 0 | 1 |
| CEO_Chair | 365 | .2246575 | .4179295 | 0 | 1 |
| patti_sind | 365 | .5178082 | .5003687 | 0 | 1 |
| RiskROA | 365 | .0293689 | .021672 | 0 | .0931746 |
| Growth | 306 | .6122759 | 6.059656 | -.8375057 | 80.51637 |

*Table 20: Family private firms*

| Variable | Obs | Mean | Std. dev. | Min | Max |
|---|---|---|---|---|---|
| Div | 1,015 | .8876847 | .3159096 | 0 | 1 |
| ROE | 1,015 | .0957635 | .0959613 | 0 | .8254132 |
| ROA | 1,015 | .0979108 | .065543 | -.1266139 | .3754553 |
| Leverage | 1,015 | .2694999 | .1444902 | 0 | .8320924 |
| Size | 1,015 | 12.7918 | 1.204808 | 10.33812 | 16.28452 |
| Age | 1,015 | 60.44236 | 40.18464 | 1 | 271 |
| MTB | 1,015 | 2.032571 | 1.97786 | 0 | 17.7698 |
| Qtobin | 1,015 | 1.38566 | .7910501 | .3665423 | 7.767028 |
| CR | 1,015 | 1.717887 | .9248515 | .0579378 | 7.153952 |
| ICR | 1,015 | 18.62206 | 111.3141 | -6.284628 | 3182.833 |
| controllin~e | 1,015 | 61.72834 | 7.998642 | 30 | 93.883 |
| inst_share | 1,007 | 3.19837 | 4.41979 | 0 | 21.265 |
| DPR | 1,015 | .6068072 | .6924355 | 0 | 11.6 |
| Divsales | 1,015 | .0258227 | .0415492 | 0 | .470599 |
| Divmktcap | 1,015 | .0219482 | .0217768 | 0 | .2083333 |
| Ind_Rem_co~e | 1,015 | .5864204 | .3722658 | 0 | 1 |
| ROA_Industry | 1,015 | .0705216 | .0331912 | -.0089302 | .177762 |
| family50 | 1,015 | 1 | 0 | 1 | 1 |
| family30 | 1,015 | 1 | 0 | 1 | 1 |
| dual | 1,013 | .3415597 | .474467 | 0 | 1 |
| tenure | 1,015 | 9.39803 | 7.843338 | 1 | 40 |
| typer | 1,015 | .4827586 | .499949 | 0 | 1 |
| StockOp_Dum | 993 | .2930514 | .4553912 | 0 | 1 |
| star | 1,015 | .4541872 | .4981422 | 0 | 1 |
| CEO_Chair | 1,014 | .3668639 | .4821868 | 0 | 1 |
| patti_sind | 1,015 | .2541872 | .435618 | 0 | 1 |
| RiskROA | 1,015 | .031428 | .0232146 | 0 | .1821334 |
| Growth | 861 | .0922397 | .2719324 | -.8272385 | 1.937291 |

To check if these differences are significant, a test on averages is performed in the next section.

## 6.4 Average differences t-test

In order to establish if statistically significant differences really exist between the mean values of the variables considered in the previous paragraph, i.e. between the averages of the two sample groups (family firms and non-family firms), it is useful to analyse them by testing the hypothesis on the difference of the averages through the t-test, using a significance level of 5%, i.e. having 95% probability that the averages differ and 5% predetermined probability of incorrectly rejecting the null hypothesis when in fact it is correct, using as null hypothesis the significant absence of difference between the averages and as alternative hypothesis the existence of this difference.

Since the significance level is 5%, then the null hypothesis can be rejected when the p-value is less than or equal to 5% and, equivalently, the absolute value of the t-statistic is greater than 1.96.

The tests performed are shown below, showing the following results:

- Non-family enterprises are significantly larger than family enterprises.
- The value of businesses perceived by the market is significantly higher in family businesses than in non-family businesses.
- Non-family firms have a significantly higher growth rate than family firms.

- Non-family firms adopt significantly more stock option shares than family firms.
- Family firms are significantly more likely to distribute dividends than non-family firms.
- Family businesses have significantly more dual class shares than non-family businesses.

### 6.4.1 Difference in performance between family and non-family businesses

Using ROE and ROA as a measure of firm performance and performing the t-test, the empirical evidence does not permit the rejection of the null hypothesis; in fact, no statistically significant differences are found between family and non-family firms.

In fact, as the following two tables show, the p-value assumes a value of more than 5% and the t-statistic assumes an absolute value of less than 1.96 in both the ROE and ROA tests.

*Table 21: t-test ROE family vs non family firms*

```
. ttest ROE if stateown==0, by(family50)

Two-sample t test with equal variances

   Group |     Obs        Mean    Std. err.   Std. dev.   [95% conf. interval]
---------+--------------------------------------------------------------------
       0 |     365    .0869626    .0056105    .1071894    .0759295    .0979958
       1 |   1,015    .0957635    .0030121    .0959613    .0898529    .1016741
---------+--------------------------------------------------------------------
Combined |   1,380    .0934358    .0026674    .0990912    .0882031    .0986684
---------+--------------------------------------------------------------------
    diff |           -.0088009    .0060453               -.0206599    .0030581
------------------------------------------------------------------------------
    diff = mean(0) - mean(1)                                      t =  -1.4558
H0: diff = 0                     Degrees of freedom =     1378

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.0728         Pr(|T| > |t|) = 0.1457          Pr(T > t) = 0.9272
```

*Table 22: t-test ROA family vs non family firms*

```
. ttest ROA if stateown==0, by(family50)

Two-sample t test with equal variances

   Group |     Obs        Mean    Std. err.   Std. dev.   [95% conf. interval]
---------+--------------------------------------------------------------------
       0 |     365    .0937461    .0035223    .0672941    .0868194    .1006728
       1 |   1,015    .0979108    .0020573     .065543    .0938738    .1019478
---------+--------------------------------------------------------------------
Combined |   1,380    .0968093     .001777    .0660117    .0933234    .1002952
---------+--------------------------------------------------------------------
    diff |           -.0041647    .0040287               -.0120678    .0037384
------------------------------------------------------------------------------
    diff = mean(0) - mean(1)                                      t =  -1.0337
H0: diff = 0                                     Degrees of freedom =     1378

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.1507         Pr(|T| > |t|) = 0.3014          Pr(T > t) = 0.8493
```

## 6.4.2 Size difference between family and non-family businesses

Using the size variable as an instrument to measure the size of enterprises, the test on the difference in averages is also performed here, which shows that non-family enterprises are significantly larger than family enterprises.

*Table 23: t-test size family vs non family firms*

```
. ttest Size if stateown==0, by(family50)

Two-sample t test with equal variances

   Group |     Obs        Mean    Std. err.   Std. dev.   [95% conf. interval]
---------+--------------------------------------------------------------------
       0 |     365    13.41151    .0878889    1.679115    13.23867    13.58434
       1 |   1,015     12.7918    .0378168    1.204808    12.71759    12.86601
---------+--------------------------------------------------------------------
Combined |   1,380    12.95571    .0369717    1.373439    12.88318    13.02824
---------+--------------------------------------------------------------------
    diff |            .6197062    .0821761                .4585025    .7809099
------------------------------------------------------------------------------
    diff = mean(0) - mean(1)                                      t =   7.5412
H0: diff = 0                                     Degrees of freedom =     1378

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 1.0000         Pr(|T| > |t|) = 0.0000          Pr(T > t) = 0.0000
```

### 6.4.3 Market value difference between family and non-family businesses

Using the Qtobin variable as an instrument to measure the market value of firms, the test on the difference in averages shows that family firms have a significantly larger market value than non-family firms.

*Table 24:t-test Qtobin family vs non family firms*

```
. ttest Qtobin if stateown==0, by(family50)

Two-sample t test with equal variances
```

| Group | Obs | Mean | Std. err. | Std. dev. | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| 0 | 365 | 1.280703 | .0400495 | .7651438 | 1.201946 | 1.35946 |
| 1 | 1,015 | 1.38566 | .0248297 | .7910501 | 1.336936 | 1.434383 |
| Combined | 1,380 | 1.357899 | .0211415 | .7853722 | 1.316426 | 1.399372 |
| diff | | -.1049566 | .0478671 | | -.1988568 | -.0110564 |

```
    diff = mean(0) - mean(1)                                      t =  -2.1927
H0: diff = 0                     Degrees of freedom =     1378

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.0142         Pr(|T| > |t|) = 0.0285          Pr(T > t) = 0.9858
```

### 6.4.4 Leverage difference between family and non-family businesses

Using the leverage variable to see if there is a statistically significant difference between the two sample groups regarding the debt structure of the firm, no statistically significant differences are found between family and non-family firms.

*Table 25:t-test leverage family vs non family firms*

```
. ttest Leverage if stateown==0, by(family50)

Two-sample t test with equal variances
```

| Group | Obs | Mean | Std. err. | Std. dev. | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| 0 | 365 | .2652298 | .0082917 | .158413 | .2489241 | .2815355 |
| 1 | 1,015 | .2694999 | .0045353 | .1444902 | .2606003 | .2783996 |
| Combined | 1,380 | .2683705 | .0039908 | .1482532 | .2605418 | .2761993 |
| diff | | -.0042701 | .0090508 | | -.0220249 | .0134847 |

```
    diff = mean(0) - mean(1)                                      t =  -0.4718
H0: diff = 0                     Degrees of freedom =     1378

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.3186         Pr(|T| > |t|) = 0.6371          Pr(T > t) = 0.6814
```

### 6.4.5 Growth difference between family and non-family businesses

Testing the difference in averages between the two samples using the opportunity for business growth as a variable, non-family firms have significantly higher growth than family firms.

*Table 26: t-test growth family vs non family firms*

```
. ttest Growth if stateown==0, by(family50)

Two-sample t test with equal variances

   Group |     Obs        Mean    Std. err.   Std. dev.   [95% conf. interval]
---------+--------------------------------------------------------------------
       0 |     306    .6122759    .3464075    6.059656   -.0693752    1.293927
       1 |     861    .0922397    .0092674    .2719324    .0740503    .1104291
---------+--------------------------------------------------------------------
Combined |   1,167    .2285988    .0912256    3.116392    .0496142    .4075835
---------+--------------------------------------------------------------------
    diff |            .5200362    .2069367                .1140258    .9260465
------------------------------------------------------------------------------
    diff = mean(0) - mean(1)                                      t =   2.5130
H0: diff = 0                                     Degrees of freedom =     1165

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.9939         Pr(|T| > |t|) = 0.0121          Pr(T > t) = 0.0061
```

### 6.4.6 Risk difference between family and non-family businesses

Using business risk as the variable for the study, measured as the volatility of ROA, no statistically significant differences are found between family and non-family businesses.

*Table 27: t-test risk family vs non family firms*

```
. ttest RiskROA if stateown==0, by(family50)

Two-sample t test with equal variances

   Group |     Obs        Mean    Std. err.   Std. dev.   [95% conf. interval]
---------+--------------------------------------------------------------------
       0 |     365    .0293689    .0011344     .021672    .0271381    .0315996
       1 |   1,015     .031428    .0007287    .0232146    .0299981    .0328579
---------+--------------------------------------------------------------------
Combined |   1,380    .0308834    .0006145     .022827     .029678    .0320888
---------+--------------------------------------------------------------------
    diff |           -.0020591    .0013926               -.004791    .0006727
------------------------------------------------------------------------------
    diff = mean(0) - mean(1)                                      t =  -1.4786
H0: diff = 0                                     Degrees of freedom =     1378

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.0697         Pr(|T| > |t|) = 0.1395          Pr(T > t) = 0.9303
```

### 6.4.7 Liquidity Difference between Family and Non-Family Businesses

Regarding the liquidity between the two samples, using the current ratio as a variable, no statistically significant differences are found between family and non-family businesses.

Moreover, the same result is confirmed when using ICR as a variable.

*Table 28: t-test current ratio family vs non family firms*

```
. ttest CR if stateown==0, by(family50)

Two-sample t test with equal variances
```

| Group | Obs | Mean | Std. err. | Std. dev. | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| 0 | 365 | 1.811966 | .0970679 | 1.854479 | 1.621082 | 2.00285 |
| 1 | 1,015 | 1.717887 | .0290295 | .9248515 | 1.660922 | 1.774851 |
| Combined | 1,380 | 1.74277 | .033389 | 1.240345 | 1.677271 | 1.808269 |
| diff | | .0940791 | .0756862 | | -.0543936 | .2425518 |

```
    diff = mean(0) - mean(1)                                      t =   1.2430
H0: diff = 0                     Degrees of freedom =     1378

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.8930         Pr(|T| > |t|) = 0.2141          Pr(T > t) = 0.1070
```

*Table 29: t-test ICR family vs non family firms*

```
. ttest ICR if stateown==0, by(family50)

Two-sample t test with equal variances
```

| Group | Obs | Mean | Std. err. | Std. dev. | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| 0 | 365 | 11.0221 | 1.206676 | 23.05351 | 8.649168 | 13.39503 |
| 1 | 1,015 | 18.62206 | 3.493955 | 111.3141 | 11.76585 | 25.47827 |
| Combined | 1,380 | 16.61193 | 2.590773 | 96.24294 | 11.52964 | 21.69421 |
| diff | | -7.599963 | 5.872496 | | -19.11996 | 3.920037 |

```
    diff = mean(0) - mean(1)                                      t =  -1.2942
H0: diff = 0                     Degrees of freedom =     1378

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.0979         Pr(|T| > |t|) = 0.1958          Pr(T > t) = 0.9021
```

### 6.4.8 Stock option difference between family firms and non-family firms

To investigate if family firms decide to emit stock options as a tool to extract benefits, it appears that these firms tend to emit significantly fewer stock options than non-family firms.

*Table 30:t-test Stock option family vs non family firms*

```
. ttest StockOp_Dum if stateown==0, by(family50)

Two-sample t test with equal variances
```

| Group | Obs | Mean | Std. err. | Std. dev. | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| 0 | 343 | .3906706 | .0263826 | .4886135 | .3387779 | .4425632 |
| 1 | 993 | .2930514 | .0144514 | .4553912 | .2646925 | .3214102 |
| Combined | 1,336 | .3181138 | .012747 | .4659183 | .2931075 | .34312 |
| diff | | .0976192 | .0290687 | | .0405938 | .1546446 |

```
    diff = mean(0) - mean(1)                                      t =   3.3582
H0: diff = 0                     Degrees of freedom =     1334

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.9996         Pr(|T| > |t|) = 0.0008          Pr(T > t) = 0.0004
```

### 6.4.9 Dividends propensity difference between family and non-family firms

Using the variable Div, which represents the propensity of a firm to distribute dividends, the test performed suggests that family firms have a significantly higher propensity to distribute dividends than non-family firms.

*Table 31: t-test div family vs non family firms*

```
. ttest Div if stateown==0, by(family50)

Two-sample t test with equal variances
```

| Group | Obs | Mean | Std. err. | Std. dev. | [95% conf. | interval] |
|---|---|---|---|---|---|---|
| 0 | 365 | .7808219 | .0216832 | .4142574 | .7381818 | .823462 |
| 1 | 1,015 | .8876847 | .0099158 | .3159096 | .8682268 | .9071427 |
| Combined | 1,380 | .8594203 | .0093601 | .3477135 | .8410587 | .8777819 |
| diff | | -.1068628 | .0210334 | | -.1481237 | -.0656019 |

```
    diff = mean(0) - mean(1)                                      t =  -5.0806
H0: diff = 0                     Degrees of freedom =     1378

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.0000         Pr(|T| > |t|) = 0.0000          Pr(T > t) = 1.0000
```

### 6.4.10 Dual class share difference between family and non-family businesses

Regarding the use of dual class shares as a means of separating ownership and control, there are more family firms adopting this instrument than non-family firms.

*Table 32: t-test dual class family vs non family firms*

```
. ttest dual if stateown==0, by(family50)

Two-sample t test with equal variances

   Group |     Obs        Mean    Std. err.   Std. dev.   [95% conf. interval]
---------+--------------------------------------------------------------------
       0 |     340    .2764706    .0242914    .4479115    .2286897    .3242515
       1 |   1,013    .3415597    .0149074     .474467    .3123068    .3708126
---------+--------------------------------------------------------------------
Combined |   1,353    .3252033    .0127402     .468624    .3002106    .3501959
---------+--------------------------------------------------------------------
    diff |           -.0650891    .0293292               -.1226248   -.0075535
------------------------------------------------------------------------------
    diff = mean(0) - mean(1)                                      t =  -2.2193
H0: diff = 0                     Degrees of freedom =     1351

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.0133         Pr(|T| > |t|) = 0.0266          Pr(T > t) = 0.9867
```

## 6.5 The model

In order to establish a relationship between market concentration and firms' propensity to distribute dividends using the sample of non-financial Italian listed firms in the year 2000 to 2017, the results of the regressions run through the STATA software will be shown.

Furthermore, to limit the problem of endogeneity caused by the omitted variables, the fixed effects regression model was used, thus imagining that the unobservable effects of the firms remain constant over time; therefore, that the omitted variables are constant over time, in fact the idea is that if an omitted variable does not vary over time, then any variation of the dependent variable over time cannot be caused by the omitted variable.

The objective of the analysis is to understand if majority shareholders use dividend policy to mitigate conflicts with minority shareholders or to behave opportunistically towards them.

Using the Berzins et al. approach,[150] their model considers only private family firms, where the propensity of majority shareholders to expropriate minority shareholders is higher.

The baseline model constructed by the scholars is as follows:

$$Div_{it} = \alpha + \beta_1 Con_{it} + \beta_2 Liq_{it} + \beta_3 Pro_{it} + \beta_4 Growth_{it} + \beta_5 Risk_{it} + \beta_6 Size_{it} + \beta_7 Age_{it} + \psi_{it}$$

[150] Berzins & al. (2017). Shereholder conflicts and dividends. Review of Finance, Volume 22, Issue 5, August 2018, pp. 1807–1840.

The purpose of this project is to focus on the effect that the variable of interest, so the controlling share, has on the dividend payout ratio variable; remembering, moreover, that the sign of the coefficient of the controlling share variable will give the information on the behaviour of the majority shareholders, since if negative it will indicate the propensity of the majority shareholders to reduce conflicts, if positive the opposite:

$$\begin{cases} \beta_1 > 0 & opportunistic\ model \\ \beta_1 \leq 0 & conflict\ reducing\ model \end{cases}$$

On the other hand, controlling variables are used with the aim of reducing the problem related to the omitted variable.
In fact, in the first regression of this project the controlling variables follow the Berzins et al approach:

- As measure of *liquidity*, Berzins et al. used the ratio between cash and total assets, while in this project, considering the data available in the sample, current ratio and interest coverage ratio are used to.
  In theory, as liquidity increase, the payout ratio increases too, since it could be easier to pay high dividends for the company.
  *H1: As liquidity increases, the payout ratio increases*

- As measure of *profitability*, Berzins et al. used the ROA calculation, while in this study ROE and ROA are used.

In theory, following the Berzins et al. hypothesis, as profitability increases, the payout ratio increases, since firms are more profitable and are more likely to pay dividends.

*H2*: As *profitability increases, the payout ratio increases*

- The *growth*, in Berzins et al. study and in this project too, is calculated as a percentage of the sales over the last three years. There is a negative relationship with the payout ratio.

  *H3*: As *growth increases, the payout ratio decreases*

- The volatility is represented by the *risk* variable and is calculated as the standard deviation of sales over the last three years in Berzins et al study and in this project too.

  There is a negative relationship with the payout ratio; in fact, following the Lintner's theory, managers prefer to keep the share of dividends distributed stable over the years and only increase it when there is certainty that the increase can be maintained into the future.

  *H4*: As *the risk increases, the payout ratio decreases*

- Regarding Size and Age, size is measured as the logarithm of sales, while age is measured as the year since the firm was founded in this project.

  Larger and more mature companies are subject to constraints and, as a result, they will be more likely to pay dividends.

  *H5*: *As the size increases, the payout ratio increases*

  *H6*: As *the age increases,* the *payout ratio increases*

In the following table an overview of the first controlling variables used in this final project, compared with those used in Berzins et al. model, is shown.

*Table 33: Controlling variables overview*

| Controlling variables | Berzins et al. | This final project | Hypothesis |
|---|---|---|---|
| **Liquidity** | **Liq-** cash divided by total asset | **ICR**- interest cover ratio<br>**CR**- Current ratio | + |
| **Profitability** | **Pro**- return on asset | **ROA**- return on asset<br>**ROE**- return on equity | + |
| **Growth** | **Growth**- the percentage of the sales over the last three years | **Growth**- the percentage of the sales over the last three years | - |
| **Risk** | **Risk**- the standard deviation of sales over the last three years | **RiskSales**- the standard deviation of sales over the last three years<br>**RiskROA**- the ROA standard devation | - |
| **Size** | **Size**- the logarithm of sales | **Size**- the logarithm of sales | + |
| **Age** | **Age**- the natural logarithm of the years since the company was founded | **Age**- the years since the company was founded | + |

*Positive hypothesis relationship with the dependent variable is represented by the positive sign (+), on the contrary negatives one with negative sign (-).*

In addition, in the model, will be considered the measure of investment opportunity, using the Qtobin and market to book ratio, *MTB*, variables, following

Fama and French (2001) approach,[151] considering the investment opportunity as variable that influences the choice to distribute dividends, with a negative relationship, since companies with low market-to-book ratios tend to distribute dividends to indicate that the company is undervalued.

*H7:* As *the investment opportunities increase,* the *payout ratio decreases.*

The following table shows the effect of family ownership on Dividend/Net income.

(1) The first regression shows how the controlling share variable, individually significant being the t-statistic in absolute value greater than 1.96 and the p-value below 5%, has a negative coefficient, indicating then that majority shareholders use the dividend policy to mitigate the conflict with minority shareholders.

In this first analysis, it is noted that the control variables, however, are some individually significant and others are not, but summarily the F-test, with a p-value below 1%, which studies the overall significance of the model, shows that jointly all the variables are significant; therefore, the model in question is significant. In particular, the variables size, age and current ratio turn out not to be significant individually; for this reason, a second regression is carried out with the aim of improving the ability of the explanatory variables to predict the values of the dependent variable, thus increasing the r square.

$$DPR_{it} = \alpha + \beta_1 controllingshare_{it} + \beta_2 CR_{it} + \beta_3 ROE_{it} + \\ + \beta_4 Growth_{it} + \beta_5 Risksales_{it} + \beta_6 Size_{it} + \beta_7 Age_{it} + \psi_{it} \qquad (1)$$

[151] Fama and Franch (2001). D*isappearing Dividends: Changing Firm Characteristics or Lower Propensity to Pay?.* Journal of Financial Economics, 60, pp. 3-43

(2) In the second regression, while still retaining the size and age variables, it was replaced the current ratio with the alternative measure of liquidity through the interest-coverage ratio.

With this modification the main result, i.e. the relationship between the percentage of dividends distributed and the control share, remains unchanged, the variables size and age continue to be not significant individually, while the new introduced variable assumes significance.

Overall, the value of r-square increased very little, maintaining the same order of magnitude as before.

$$DPR_{it} = \alpha + \beta_1 controllingshare_{it} + \beta_2 ICR_{it} + \beta_3 ROE_{it} + \\ + \beta_4 Growth_{it} + \beta_5 Risksales_{it} + \beta_6 Size_{it} + \beta_7 Age_{it} + \psi_{it} \qquad (2)$$

(3) In the third regression, the possibility of introducing a different variable that measures the performance of the firm, ROA, is assessed, in order to see if this variable better predicts the values of the dependent variable or not and at the same time it was eliminated the variable Age.

The results remain almost similar, ROA has significance even individually, but the r-square was higher before when ROE was used in its place, for this reason the analysis continues considering ROE as the explanatory variable for firm performance in this study.

$$DPR_{it} = \alpha + \beta_1 controllingshare_{it} + \beta_2 ICR_{it} + \beta_3 ROA_{it} + \\ + \beta_4 Growth_{it} + \beta_5 Risksales_{it} + \beta_6 Size_{it} + \psi_{it} \qquad (3)$$

(4) The fourth regression, on the other hand, eliminates the variable Age, which was never individually significant in the previous tests, but using the ROE as measure of profitability, confirming the results previously found and increasing the value of r square from 16.9% to 18.5%.

$$DPR_{it} = \alpha + \beta_1 controllingshare_{it} + \beta_2 ICR_{it} + \beta_3 ROE_{it} + \\ + \beta_4 Growth_{it} + \beta_5 Risksales_{it} + \beta_6 Size_{it} + \psi_{it} \quad (4)$$

(5) In order to introduce other possible explanatory variables of the dependent variable and improve model accuracy, a fifth regression was carried out by adding the variable Qtobin, to the model, which confirms the results previously found and causes the value of r-square to increase from 18.5% to 21%.

$$DPR_{it} = \alpha + \beta_1 controllingshare_{it} + \beta_2 ICR_{it} + \beta_3 ROE_{it} + \\ + \beta_4 Growth_{it} + \beta_5 Risksales_{it} + \beta_6 Size_{it} + \beta_7 Qtobin_{it} + \psi_{it} \quad (5)$$

(6) Finally, in order to understand which variable representing the company's investment opportunity is most able to explain the variability of the dependent variable, the Qtobin was replaced by the MTB, which assumes significance individually too and increases the value of r-square from 21% to 21.3%.

$$DPR_{it} = \alpha + \beta_1 controllingshare_{it} + \beta_2 ICR_{it} + \beta_3 ROE_{it} + \\ + \beta_4 Growth_{it} + \beta_5 Risksales_{it} + \beta_6 Size_{it} + \beta_7 MTB_{it} + \psi_{it} \quad (6)$$

*Table 34: Effect of family ownership on Dividend/Net income*

| DPR VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| controllingshare | -0.00968** | -0.00960** | -0.0102* | -0.00955** | -0.00870* | -0.00956** |
| | (0.00423) | (0.00414) | (0.00490) | (0.00449) | (0.00430) | (0.00435) |
| ROE | -2.277*** | -2.282*** | | -2.284*** | -2.647*** | -2.555*** |
| | (0.408) | (0.413) | | (0.415) | (0.525) | (0.491) |
| Risksales | 1.18e-06* | 1.18e-06* | 1.22e-06* | 1.19e-06* | 1.17e-06* | 1.18e-06* |
| | (5.88e-07) | (5.88e-07) | (5.99e-07) | (5.87e-07) | (5.77e-07) | (5.82e-07) |
| Size | -0.106 | -0.107 | -0.122** | -0.111** | -0.102 | -0.103* |
| | (0.0887) | (0.0887) | (0.0496) | (0.0529) | (0.0595) | (0.0536) |
| Age | -0.00104 | -0.00101 | | | | |
| | (0.0122) | (0.0110) | | | | |
| Growth | -0.362*** | -0.363*** | -0.351** | -0.358*** | -0.396*** | -0.376*** |
| | (0.121) | (0.123) | (0.124) | (0.0936) | (0.103) | (0.0981) |
| CR | 0.00146 | | | | | |
| | (0.0371) | | | | | |
| ICR | | 8.74e-05** | 8.05e-05** | 8.72e-05*** | 4.05e-05 | 6.78e-05*** |
| | | (3.15e-05) | (3.36e-05) | (3.06e-05) | (2.45e-05) | (2.33e-05) |
| ROA | | | -2.423*** | | | |
| | | | (0.797) | | | |
| Qtobin | | | | | 0.171** | |
| | | | | | (0.0808) | |
| MTB | | | | | | 0.0571*** |
| | | | | | | (0.0155) |
| Constant | 2.770*** | 2.768*** | 2.955*** | 2.756*** | 2.403** | 2.581*** |
| | (0.733) | (0.741) | (0.748) | (0.822) | (0.930) | (0.844) |
| | | | Fixed effects | | | |
| F | 28.62 | 6.81 | 6.91 | 8.05 | 7.97 | 8.19 |
| Prob>F | 0.0000 | 0.0003 | 0.0003 | 0.0003 | 0.0001 | 0.0001 |
| Observations | 861 | 861 | 861 | 861 | 861 | 861 |
| R-squared | 0.178 | 0.179 | 0.169 | 0.185 | 0.210 | 0.213 |
| Number of firm | 77 | 77 | 77 | 77 | 77 | 77 |

*These regressions were estimated using panel data for 77 groups and 861 observations using the years from 2000 to 2017. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.*

As shown in Table 34, the null hypothesis is rejected, since with F-test it is possible to conclude that the relationship between the independent variables and the dependent one variable is statistically reliable.
The final regression of the model is the following:

$$DPR_{it} = \alpha + \beta_1 controllingshare_{it} + \beta_2 ICR_{it} + \beta_3 ROE_{it} + \\ + \beta_4 Growth_{it} + \beta_5 Risksales_{it} + \beta_6 Size_{it} + \beta_7 MTB_{it} + \psi_{it} \quad (6)$$

Whit the following results:

- Negative relationship between **controlling share** and DPR, dividend payout ratio, it means that majority shareholders use the dividend policy to mitigate conflicts with the minority ones, as in the Berzins et al. model for Norway private firms.
- Positive relationship between interest cover ratio, **ICR**, as measure of liquidity, and DPR, dividend payout ratio, as in the Berzins et al. model for Norway private firms, so as liquidity increase, the payout ratio increases too, since it is easier to pay high dividends for the company.
- Negative relationship between return on equity, **ROE**, as measure of profitability, and DPR, dividend payout ratio, contrary to what was expected, and a possible explanation could be that firms prefer to reduce dividends and invest more.
- Negative relationship between **growth** and DPR, dividend payout ratio, as we expected and aligned with Berzins et al. hypothesis.
- Negative relationship between **Size** and DPR, dividend payout ratio, contrary to what was expected.

- Positive relationship between **Risksales** and DPR, dividend payout ratio, contrary to what was expected.

  A possible explanation could be that managers want to reward shareholders from the risks taken.
- Finally, a positive relationship between **MTB** and DPR, dividend payout ratio, but contrary to what was expected, and it means that when the value of the firm increases, the firm is more likely to pay more dividends.

*Table 35: Final results overview*

| Variables | This final project | Hypothesis | Relationship found |
|---|---|---|---|
| **Con** | **Controllingshare** | **?** | **-** |
| **Liquidity** | **ICR**- interest cover ratio | + | + |
| **Profitability** | **ROE**- return on equity | + | - |
| **Growth** | **Growth**- the percentage of the sales over the last three years | - | - |
| **Risk** | **RiskSales**- the standard deviation of sales over the last three years | - | + |
| **Size** | **Size**- the logarithm of sales | + | - |
| **Investment opportunity** | MTB- market to book ratio | - | + |

*Positive relationship with the dependent variable is represented by the positive sign (+), on the contrary negatives one with negative sign (-). In red, variables with different relationship with the dependent variable from the hypothesis are represented.*

In addition, to add more explanatory variables to the dependent variable, i.e. in order to introduce other control variables,[152] that may influence the choice of dividend distribution, further regressions were run to establish which of control variables really influenced the dependent variable, but they were all individually non-significant at least at the 10% level.

Finally, further regressions were run to test the robustness of the regressions through two tests:

1. Using a broader concept of family, i.e. using the variable fam30,[153] in which the individual or set of individuals with a controlling interest of more than 30% is considered a family, the results obtained were confirmed, concluding that majority shareholders use dividend policy to mitigate conflicts with minority shareholders.

2. Using the other two definitions of the percentage of dividends paid, Divmktcap and Divsales,[154] the main result in the final regression remained unchanged, confirming that majority shareholders use the dividend policy to mitigate conflicts with minority shareholders.

[152] The other control variables tested are patti_sind, Ceo_Chair, RiskROA famceo50, dual, tenure, Ind_Rem_comitee, star, StockOp_Dum, typer and Leverage, which are not individually significant even at 10%.

[153] See Appendix A- Robustness test with different ownership definition

[154] See Appendix B- Robustness test with different payout ratio definition

## 7. Conclusions

The purpose of this project was to analyse the behaviour of majority versus minority shareholders through the use of dividend policy in the Italian context of non-financial listed companies.

In carrying out the project, an initial introduction was made to the theoretical foundations of corporate governance and how the behaviour of majority shareholders towards minority shareholders also depends strongly on the behaviour of the government to safeguard the minority shareholders, on the degree of separation between ownership and control but also on the presence of a family and its degree of participation in the companies' management.

Through the analysis of the principal-principal agency problem, treated little in the literature, the possible problems arising from conflicts of interest between majority and minority shareholders and the possible instruments of separation between ownership and control that can be used to facilitate the expropriation of the latter, such as shareholders' agreements or pyramid structures, are discussed.

Then, an excursus on the situation in the Italian context is presented, showing the evolution of corporate governance in both listed and unlisted Italian companies since the first half of the 1990s, analysing all the variations up to now, showing a family prevalence in the case of both types of companies and a negative trend towards shareholders' agreements and pyramid structures.

Subsequently, the concept of dividends was explored further, studying the different models found in the literature and finding that the distribution of dividends depends on important variables such as the legal system, the prospects of the firm, and the life cycle of the firm itself.

In general, according to the literature, the principal-principal conflict is more frequent and probable in companies with poor legal protection and controlled by majority shareholders, so in countries with civil law system.

Italy, being a country with a civil law system, is an excellent starting point to study this type of conflict.

Then, the control by majority shareholders is more common in private companies than in public ones, and in family companies than in non-family firms, situation confirmed again in Italy.

For this reason, the private family Italian listed companies were selected, in the last section, to carry out the empirical analysis.

In order to understand how majority shareholders use dividend policy a sample of non-financial Italian listed companies, at the Italian Stock Exchange, between 2000 and 2017 was selected.

From the analyses carried out, it was found that majority shareholders use dividend policy to mitigate conflicts with minority shareholders, in Italian family listed companies.

This is certainly a preliminary analysis that can be extended not only in the Italian context, but also in other contexts with different legal systems from the Italian one and different corporate structures that could lead to other results and adding other explanatory variables to increase the accuracy of the model.

# Appendix A- Robustness test with different ownership definition

*Table 36: Effect of family ownership(family 30) on Dividend/Net income*

| DPR w family30 VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| controllingshare | -0.00877** | -0.00870** | -0.00970** | -0.00886** | -0.00812** | -0.00881** |
| | (0.00378) | (0.00373) | (0.00440) | (0.00411) | (0.00387) | (0.00391) |
| ROE | -2.257*** | -2.264*** | | -2.260*** | -2.620*** | -2.541*** |
| | (0.370) | (0.373) | | (0.376) | (0.479) | (0.445) |
| Risksales | 1.01e-06* | 1.01e-06* | 1.04e-06* | 1.01e-06* | 9.97e-07* | 1.00e-06* |
| | (5.80e-07) | (5.80e-07) | (5.91e-07) | (5.79e-07) | (5.70e-07) | (5.73e-07) |
| Size | -0.156** | -0.156** | -0.157*** | -0.149*** | -0.140** | -0.140*** |
| | (0.0720) | (0.0731) | (0.0483) | (0.0449) | (0.0502) | (0.0448) |
| Age | 0.00186 | 0.00181 | | | | |
| | (0.0106) | (0.00958) | | | | |
| Growth | -0.320** | -0.320** | -0.334** | -0.328*** | -0.365*** | -0.346*** |
| | (0.118) | (0.118) | (0.124) | (0.0989) | (0.105) | (0.101) |
| CR | -0.00101 | | | | | |
| | (0.0348) | | | | | |
| ICR | | 8.92e-05*** | 7.80e-05** | 8.93e-05*** | 3.79e-05 | 6.74e-05*** |
| | | (2.98e-05) | (3.05e-05) | (2.94e-05) | (2.30e-05) | (2.09e-05) |
| ROA | | | -2.246*** | | | |
| | | | (0.749) | | | |
| Qtobin | | | | | 0.182** | |
| | | | | | (0.0859) | |
| MTB | | | | | | 0.0620*** |
| | | | | | | (0.0169) |
| Constant | 3.177*** | 3.178*** | 3.365*** | 3.205*** | 2.842*** | 2.996*** |
| | (0.629) | (0.645) | (0.699) | (0.731) | (0.812) | (0.732) |
| | | | Fixed effects | | | |
| F | 27.80 | 31.51 | 8.44 | 26.00 | 14.15 | 15.74 |
| Prob>F | 0.0000 | 0.0000 | 0.0001 | 0.0000 | 0.0000 | 0.0000 |
| Observations | 970 | 970 | 970 | 970 | 970 | 970 |
| R-squared | 0.167 | 0.167 | 0.155 | 0.169 | 0.199 | 0.205 |
| Number of nfirm2 | 90 | 90 | 90 | 90 | 90 | 90 |

*These regressions were estimated using panel data for 90 groups and 970 observations using the years from 2000 to 2017. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.*

# Appendix B- Robustness test with different payout ratio definition

*Table 37: Effect of ownership family on dividend/market capital ratio*

| Divmktcap VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| controllingshare | -0.000230* | -0.000236* | -0.000187 | -0.000220* | -0.000219* | -0.000263* |
| | (0.000123) | (0.000120) | (0.000125) | (0.000124) | (0.000130) | (0.000132) |
| ROE | 0.0719*** | 0.0738*** | | 0.0732*** | 0.0865*** | 0.0918*** |
| | (0.0190) | (0.0186) | | (0.0194) | (0.0251) | (0.0240) |
| Risksales | -4.51e-09** | -4.48e-09** | -5.06e-09** | -4.12e-09** | -3.65e-09* | -3.44e-09 |
| | (1.67e-09) | (1.63e-09) | (1.90e-09) | (1.63e-09) | (1.76e-09) | (2.00e-09) |
| Size | 0.00252 | 0.00252 | 0.000607 | 0.00129 | 0.000936 | 0.000853 |
| | (0.00249) | (0.00243) | (0.00215) | (0.00176) | (0.00160) | (0.00186) |
| Age | -0.000368 | -0.000299 | | | | |
| | (0.000361) | (0.000386) | | | | |
| Growth | -0.00157 | -0.00199 | -0.00403 | -0.000514 | 0.000374 | 0.00141 |
| | (0.00451) | (0.00439) | (0.00365) | (0.00441) | (0.00426) | (0.00448) |
| CR | 0.00191 | | | | | |
| | (0.00148) | | | | | |
| ICR | | 6.42e-07 | -1.22e-06 | 5.90e-07 | 1.54e-06 | 2.97e-06 |
| | | (2.11e-06) | (7.68e-07) | (2.10e-06) | (2.50e-06) | (3.06e-06) |
| ROA | | | 0.147*** | | | |
| | | | (0.0196) | | | |
| Qtobin | | | | | | -0.00872*** |
| | | | | | | (0.00148) |
| MTB | | | | | -0.00278*** | |
| | | | | | (0.000637) | |
| Constant | 0.0170 | 0.0163 | 0.0127 | 0.0126 | 0.0211 | 0.0305 |
| | (0.0263) | (0.0256) | (0.0272) | (0.0242) | (0.0229) | (0.0253) |
| | | | Fixed effects | | | |
| F | 12.95 | 10.20 | 18.13 | 8.68 | 13.28 | 7.81 |
| Prob>F | 0.0000 | 0.0000 | 0.0000 | 0.0001 | 0.0000 | 0.0001 |
| Observations | 861 | 861 | 861 | 861 | 861 | 861 |
| R-squared | 0.06 | 0.07 | 0.15 | 0.15 | 0.16 | 0.19 |
| Number of firm | 77 | 77 | 77 | 77 | 77 | 77 |

*These regressions were estimated using panel data for 77 groups and 861 observations using the years from 2000 to 2017. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.*

*Table 38: Effect of ownership family on Dividend/Net sales*

| Divsales VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| controllingshare | -0.000369 | -0.000354 | -0.000365 | -0.000402 | -0.000280 | -0.000404* |
| | (0.000232) | (0.000238) | (0.000299) | (0.000294) | (0.000203) | (0.000200) |
| ROE | 0.118** | 0.116** | | 0.118** | 0.0655** | 0.0792*** |
| | (0.0514) | (0.0473) | | (0.0477) | (0.0269) | (0.0193) |
| Risksales | -2.01e-09 | -2.05e-09 | -4.65e-09** | -3.10e-09 | -5.04e-09* | -4.49e-09* |
| | (2.70e-09) | (2.66e-09) | (1.75e-09) | (2.03e-09) | (2.72e-09) | (2.41e-09) |
| Size | -0.00744 | -0.00750 | -0.00357 | -0.00387 | -0.00263 | -0.00282 |
| | (0.00939) | (0.00939) | (0.00709) | (0.00752) | (0.00702) | (0.00774) |
| Age | 0.000916 | 0.000882 | | | | |
| | (0.000953) | (0.000891) | | | | |
| Growth | 0.00292 | 0.00304 | -0.00255 | -0.00130 | -0.00675 | -0.00392 |
| | (0.00425) | (0.00396) | (0.00522) | (0.00538) | (0.00564) | (0.00607) |
| CR | -0.000890 | | | | | |
| | (0.00694) | | | | | |
| ICR | | 1.38e-05 | 1.38e-05* | 1.40e-05 | 7.20e-06 | 1.12e-05 |
| | | (9.07e-06) | (7.80e-06) | (8.99e-06) | (6.75e-06) | (8.10e-06) |
| ROA | | | 0.144* | | | |
| | | | (0.0701) | | | |
| Qtobin | | | | | 0.0247** | |
| | | | | | (0.0109) | |
| MTB | | | | | | 0.00819* |
| | | | | | | (0.00402) |
| Constant | 0.0784 | 0.0786 | 0.0810 | 0.0895 | 0.0385 | 0.0644 |
| | (0.0941) | (0.0925) | (0.0892) | (0.100) | (0.0927) | (0.102) |
| | | | Fixed effects | | | |
| F | 6.12 | 9.30 | 8.10 | 5.74 | 4.44 | 5.88 |
| Prob>F | 0.0006 | 0.0000 | 0.0002 | 0.0013 | 0.004 | 0.0008 |
| Observations | 861 | 861 | 861 | 861 | 861 | 861 |
| R-squared | 0.036 | 0.04 | 0.10 | 0.19 | 0.38 | 0.32 |
| Number of firm | 77 | 77 | 77 | 77 | 77 | 77 |

*These regressions were estimated using panel data for 77 groups and 861 observations using the years from 2000 to 2017. Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.*

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