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DIPARTIMENTO DI SCIENZE ECONOMICHE ED AZIENDALI
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CORSO DI LAUREA IN ECONOMIA

PROVA FINALE

**"DOES PAYOUT POLICY INFORM US ABOUT THE QUALITY OF
MANAGEMENT?"**

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MATRICOLA N. 1136109

ANNO ACCADEMICO 2018 – 2019

Abstract

Integrating elements from the Agency Theory and the Life Cycle theory, this study analyses the determinants of the manager's decisions on how to bestow the free cash flow generated during the business year. It focuses on the relationship, often characterized by severe friction, between managers and investors. Centering exclusively on US public companies, it presents the main choices that both investors and management make when considering the "dividend dilemma". In our empirical observations, starting from Academic literature findings, we demonstrate the preferences of the institutional investor, an important type of shareholder present in every modern public company, especially in the US. This type of shareholder has grown in size and influence over the past three decades and is now 'an actor' possessing a strong bargaining power in relation to the management of a firm. Through empirical evidence, we prove that the institutional investors' preferences regarding the distribution of the firm's liquidity, are repurchasing companies and firms that pay low and medium dividends. Finally, our results allow us to theorize on some key points that managers should consider when seeking the optimal payout policy for the firm and all the stakeholders.

Key words

Payout policy, conflict of interest, principal-agent relationship, agency costs, free cash flow problem, incentive control mechanism, self-control theory, quality of management.

Abstract Italiano

Integrando elementi della Teoria dell'Agenzia e della Teoria del Ciclo di Vita, questo studio analizza le determinanti delle decisioni del manager su come impiegare i free cash flow generati durante l'esercizio. Si concentra sul rapporto, spesso caratterizzato da forti attriti, tra manager e investitori. Centrato esclusivamente sulle società pubbliche statunitensi, lo studio presenta le principali scelte che sia gli investitori che il management fanno quando si considera il "dilemma dei dividendi". Nelle nostre osservazioni empiriche, partendo dai risultati della letteratura accademica, dimostriamo le preferenze dell'investitore istituzionale, un importante tipo di azionista presente in ogni azienda pubblica moderna, soprattutto negli Stati Uniti. Questo tipo di azionista è cresciuto in dimensioni e in influenza negli ultimi tre decenni; è ora un attore con un forte potere contrattuale nei confronti della gestione di un'azienda. Attraverso prove empiriche dimostriamo che le preferenze degli investitori istituzionali, per quanto riguarda la distribuzione della liquidità dell'azienda, sono aziende che riacquistano azioni proprie e aziende che pagano dividendi bassi e medi. Infine i nostri risultati ci permettono di teorizzare alcuni punti chiave che i manager dovrebbero considerare quando cercano la politica di payout ottimale per l'azienda e per tutti gli stakeholder.

Key words

Payout policy, conflict of interest, principal-agent relationship, agency costs, free cash flow problem, incentive control mechanism, self-control theory, quality of management.

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Introduction

At the end of 2003, for the first time in its history, Microsoft announced it would distribute to its shareholders a dividend of \$ 0.08 per share. What led the company to put an end to 28 consecutive years without dividends was, according to the then CFO John Connors, the need to satisfy investors' requests regarding rolling out the abundant amount of cash in the coffers of the personal computer system pioneer (a total of \$ 40 bn was distributed to shareholders). What this piece of history tells us is that managers have to consider stakeholders' wishes carefully regardless of company size, as investors play an important role in giving the enterprise the resources it requires. Almost sixteen years later, the influence wielded by investors is by no means lower and weaker, especially considering that of institutional investors. Managers, therefore, have become keen to seek out what is best to increase value for long-term shareholders for they are fully aware that their overall relationship with investors ultimately depends on the firm's liquidity distribution.

In this study, we are going to analyze the influence exerted by corporate payout policy on management decisions. All profit and non-profit organizations exist because behind them there are individuals and groups creating and building relationships. Developing networks and providing liaising, they obviously expect to receive a return from their investment and effort either in financial or other terms.

Our goal is to look in depth at corporate governance, especially in public organizations, and to observe executive and top management decisions, where these are clearly recognizable, with regard to payout policy. Along with many other business activities, such as business planning and marketing, this type of policy contributes to the firm's performance and can influence and shape, to different extents, its daily decisions, structure and overall results.

To answer the question "Does payout policy inform us about the quality of management?", focus will be on the investor-manager relationship in the search for empirical evidence of the key role played by investors in driving managers towards a payout policy that satisfies both parties. Academic literature on principal-agent relationship, since Jensen and Meckling (1976), has thoroughly identified and demonstrated the negative effects (agency costs) arising from friction between these two main groups of stakeholders. Such friction turns into costs which, as far as payout policy is concerned, are related to the firm's liquidity distribution issue, the so-called "free cash flow problem". The theory of conflict of interest between the manager in charge of the company and the shareholders who delegate, dates back to the times of Adam Smith when he first pointed out the shortcomings of the "separation and control" decision:

“The directors of such [joint-stock] companies, however, 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. Like the stewards of a rich man, they are apt to consider attention to small matters as not for their master’s honour, and very easily give themselves a dispensation from having it. Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company”. (Adam Smith, 1776)

The present analysis is broken down into three parts: in Part 1 are presented the findings of research studies so far carried out regarding the free cash flow problem and the role played by investors and managers in payout policy; Part 2 presents an investigation carried out by Grinstein and Michaely (2005) on institutional ownership in public companies and, following on from past academic studies on investors’ preferences for their firm’s liquidity distribution, contains data and observations on a sample number of investors and companies. Such data and observations have been constructed with a view to finding and giving empirical confirmation of this study’s hypotheses and theories. Part 3 presents the results and sets out the theoretical and practical implications of the study.

1 Literature Review

1.1 Dividend Policy

1.1.1 The enigma of dividends

Academic literature on dividend policy has often labelled dividends as an enigma (Fama and French, 2001). Dividends, the amount of money firms decide to give to shareholders as a return on their investments, hide many contradictions and features in spite of the apparent clear definition of dividend itself: the basic essence of dividends consists in the possibility to distribute some of the wealth a firm has generated with its activities to those subjects –the shareholders– who have some claim to a share of the outcome of these activities as a return of their share in the risks incurred by the business. Those who are entitled to decide whether to distribute dividends or not are the managers of the firm (upon approval of their Board of Directors). At this point, the shadow of a first friction between managers and shareholders becomes apparent: the distribution of earnings the single shareholder has the right to receive, depends ultimately on managers' decision.

Before moving to analyze the relationships between shareholders and managers, and the several points of friction that can occur between these two groups, we shall frame the role of dividends on the management's work. Cash flow, generated by a firm's activity, can be employed by management in different ways as: (i) a dividend payout: the free cash flow is distributed to shareholders as cash dividends; (ii) share repurchases: the firm buys back some of its shares which are in circulation; (iii) interest and capital payments: in the case of indebted firms; (iv) investments in new projects or financial instruments: for new growth opportunities; (v) an increase of cash reserves: as a guarantee for future payments.

Literature on corporate payout policy since Modigliani and Miller's "irrelevance propositions" (1961) has identified many reasons why certain firms pay dividends and why others do not, why dividend distribution can vary depending on the size, profitability and growth opportunities of the company and how certain types of stakeholders, like institutional investors can influence and direct management's optimal payout policy. In the course of this study the focus will be not on payout policy determinants, but rather on putting forward the payout theory we think best explain why firms pay dividends which is "the life-cycle theory" and only briefly will taxation differences between dividends and share repurchases among corporations be addressed; the literature review regarding these two parts will be covered in the following two subsections (1.1.2 and 1.1.3).

The main part of the study will focus, instead, on the influence single investors or group of investors contribute to management's decision on payout policy, the agent costs that emerge between the management of a corporation and its shareholders regarding the "free cash flow problem" and the opinion on the work of the management we can formulate, considering exclusively the management's decisions on payout policy (literature review sections: 1.2, 1.3, and 1.4).

1.1.2 Dividends and share repurchases

The corporate payout policy involves firms distributing available cash flows to shareholders through two operations: dividends and repurchase; in the case of an indebted firm, part of the cash flow is also used for interest and capital repayments to creditors. In order to decide which of the two operations is more favorable for the firm's value, taxes have to be considered. With that premise, taxation on dividends and repurchases differ from country to country and firm to firm (on the basis of size, operations sector and type of company), dividends are generally taxed at a higher rate than those of capital gains in the most financially developed markets. In the US, taxation on dividends has a higher incidence than that on capital gains, with some exceptions regarding the individual contract and the length of time the financial instrument has been held; for example, the tax rates of capital gains for shares that are retained for a period between sixty-one days and a year and the differences between ordinary and qualified dividends and long term and short term capital gains. Therefore, in the case of tax rates which are higher for dividends than capital gains, the optimal payout policy for the firm and its shareholders is favoring share repurchases over dividends. The fact that firms continue to make a wide use of dividends in their payout policy in spite of the tax disadvantage that can exist, the so called "dividend puzzle", suggests that there are other explanations that managers take into consideration when deciding how to dispose of free cash flow. One such explanation is the role and choices of certain investors, such as institutional investors, which will be analyzed in a later section (1.3.1).

To confirm the tendency and dividend puzzle theory of favoring dividends to share repurchases, we can consider the following empirical observations, as indicated by Constantinides et al (2003), on payout policy across the largest firms in terms of market capitalization in developed countries: (i) dividends and share repurchases are strongly favored among these firms and represent a high percentage of the earnings distributed to shareholders; (ii) the tax rates for long term capital gains (shares held for more than one year) have commonly been lower than those for dividends; (iii) dividends, historically, have been the preferred means of wealth distribution to shareholders; from the mid 1980s, share repurchases have been used

more and more often by large corporations; (iv) the incidence of tax payments for dividends is higher than those of capital gains, both for individuals (mainly those in high tax brackets) and large corporate companies.

Academic literature and empirical observation would seem to be suggesting that the optimal payout policy, in the case of different taxation, would be to favor the extensive use of share repurchases over payout of dividends, as the latter is economically disadvantageous from a taxation point of view. In the following sections an explanation will be sought for management decisions, for the “dividend puzzle”.

1.1.3 Life-cycle theory

Having briefly summarized the nature of dividends and share repurchases, and the tax issues that oppose them, we now present the theory that best explains for us what determines corporate payout policy.

The life-cycle theory, conceived by Mueller (1972), describes how managers modify their internal payout policy during the growth process of the firm: in the early years the firm is forced to reinvest the cash flow generated in order to meet the broad investment opportunity set, meaning that dividends and share repurchases are reduced to zero. As the firm grows and the range of profit investment shrinks, management starts to distribute liquid funds to shareholders, in the form of dividends and share repurchases. As the firm progresses, the risk of disagreements concerning the firm’s payout policy between managers and shareholders increases: the “agency cost” emerges, with significant consequence.

Academics Denis and Osobov, based on Mueller’s work, go on to analyze the conflict that emerges between the two groups (managers and shareholders) as the corporation moves forward. According to Denis and Osobov’s agency cost-based life-cycle theory (2006), managers’ decision about payout policy is affected by the need to dispense the free cash flow generated by the firm’s activities. In their cross-sectional analysis of firms from six different developed countries, they find empirical evidence that the amount of distributed dividends increases along the life cycle of the firm: young firms tend to distribute fewer dividends to shareholders as free cash flow is used to invest in new growth opportunities, whereas mature firms distribute greater dividends and buyback more shares as their free cash flow now surpasses their investment need. Denis and Osobov find, furthermore, that in all the six countries analyzed (US, Canada, UK, France, Germany and Japan), the most profitable firms are the largest dividend payers, suggesting that mature firms present a higher risk of agency costs of cash retention compared to smaller firms, as the investment opportunity set of these two macro groups differs.

Progressing in their life-cycle, profitable firms dispose of more cash flow: a certain amount of it is employed for investment, reserves and interest payments, and the rest is earmarked by shareholders; therefore, for mature firms that dispose of significant volumes of cash flow, the degree of friction between the agent (managers) and the principal (shareholders) increases as management may prefer to invest rather than diminish the firm's cash flow through dividends or share repurchases.

1.2 Agency costs

1.2.1 Agent-principal relationship

The "agency relationship" is defined by Jensen and Meckling (1976), as "a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent". As both the principal and agent aim at maximizing their own utility function, inefficiency and costs arise from this relationship. Such costs, the so-called "agency costs", consist of: "the sum of: (i) the monitoring expenditures by the principal; (ii) the bonding expenditures by the agent; (iii) the residual loss". In large public companies, characterized by a widespread division of capital among a myriad of small shareholders and by the presence of institutional investors, agency costs arise prominently regarding the free cash flow problem (subsection 1.2.2).

According to the agent-principal relationship, the manager is in a privileged position compared to the shareholder, as he has access to inside information concerning the company's activities that outsider stakeholders are not party to. This imbalance of information between ownership and control, explains the rise of all those costs necessary for shareholders to control management and for managers to reassure owners they are following the owner's interests. Regarding corporate payout policy, the agent and the principal are in contrast over free cash flow distribution.

Free cash flow, as exposed by Jensen (1986) is "cash flow in excess of that required to fund all projects that have positive net present values when discounted at the relevant cost of capital". The problem of how to manage and employ the cash flow is better observable for large corporations (such those on the S&P index, which hosts an optimal group of firms with a regular payout policy and with the overall highest sum of dividends distributed). In large public companies, the executives, in charge of the firm's payout policy, are faced with a number of options for optimal payout policy. These options are influenced by many variables, including

make-up of shareholders, number of institutional investors and banks, role of bondholders, management's contracts and financial statutes.

1.2.2 The free cash flow problem

The free cash flow problem concerns the distribution of the liquidity generated by the firm's activities to the owner of corporate shares. Managers and shareholders have different point of views of how to dispose of these funds, as their objectives are not generally aligned; the manager presents his own interest that on many occasions can differ substantially from those of the shareholder: corporate managers, the agents of equity owners, have conflicting interests with those on whose behalf they operate.

One reason for the existence of such a conflict of interests over payout policy, is the fact that payouts to shareholders reduce the funds the manager can control; such a reduction impacts management decisions on the investment planned, forcing executives to obtain additional resources from markets as debt capital, which in turn, is monitored by the capital markets that judge the work of management also in terms of corporate leverage. Managers, therefore, prefer to use the cash flow resources to invest and expand the company, even though this can imply pushing beyond the optimal size of the firm, as management's reputation and remuneration grows in line with company expansion sales growth being associated with a positive trend to changes in compensation clauses.

In the presence of a significant amount of free cash flow, the conflict of interest regarding corporate payout policy may intensify; managers want to meet as many growth opportunities as possible, whereas shareholders try to motivate the management "to disgorge the cash rather than investing it below the cost of capital or wasting it on organization inefficiencies" (Jensen, 1986). In the event that the shareholders obtain a significant increase in dividend payouts or stock repurchasing, managers will be also compelled to keep the level of payment high as dividend and share repurchase cuts are often viewed by the market in a negative light; this fact, therefore, proves another explanation of management's aversion to dividend and share repurchases distribution. Capital markets, in fact, can punish changes to corporate payout policy that reduces the amount of resources given to the investors; empirical observations show that both dividends and share repurchase cuts correspond to a fall in the price of company stock.

1.2.3 Incentive control mechanisms

"Corporate governance can be described as a common agency problem" (Constantinides et al 2003): the problem involves the management (agent) and the ownership (principal). To

avoid the risk of the agent's behaving in an opportunistic manner, besides monitoring the daily actions of the work of management through the capital market, the principal can use agent compensation as an effective tool to bring conflicting interests back into line.

As demonstrated by Smith and Watts (1982), shareholders dispose of many tools in order to control the work of management and try to minimize agency costs involved in the free cash flow problem. The first to be considered here is the contractual control mechanism: one way of checking that management does not over-invest is to set up a compensation scheme that rewards managers when they act to maximize the value of the firm; an example of this type of incentive plan is the bonus plan calculated with a function that includes dividend payout ratio. The market control mechanism, instead, consists of conferring to the labor and capital markets the role of deciding whether management is increasing or depleting the value of the firm. The third incentive mechanism is salary renegotiation, the most used type of compensation plan in the US, which provides that the salary of the manager is renegotiated according to the changes of the company's market value.

All these executive control mechanisms link management's remuneration to company performance parameters, such as earnings, payout ratio, and stock price, to name but a few. The payout ratio can be used as a benchmark for dividend incentives; such an incentive in the executive compensation plan, as demonstrated by White (1996), is positively related to an increase in dividend payouts and yields. High distribution of dividends may also commit the management to keeping the payout ratio constant or with but a few minor changes, as the capital market (through the investors' expectations) responds negatively with cuts in corporate payouts.

Another incentive control mechanism can be identified in stock options: with stock options offered to managers the company decreases the risk of conflict of interest and aligns management and shareholder interests. Managers who own stock options are motivated to increase the value of the firm and so push up the stock price; however stock options have been shown to make management come down on the side of share repurchase as opposed to dividends as tax advantage for capital gains surpass benefits from dividends (such as no transaction costs). As argued by Fenn and Liang (2001), "management stock options induce a substitution away from dividends toward open market repurchases", proving that stock options are not "dividend protected". Even though, as stated by White (1996), managers who own company shares are less averse to dividend distribution than those who do not hold company stock, as a manager-shareholder benefit directly from a dividend payout operation, they tend to favor share repurchases to dividends (many studies ((Lambert et al (1989); Jagannathan (2001); Fenn and Liang (2001)) have proved stock options plans prompt managers to change payout

policy, substituting dividends payouts with share repurchase). Nevertheless, stock options plans can motivate managers to reduce the amount of potential over-investment and can represent, therefore, a useful tool for shareholders to mitigate the “agency costs of cash retention” (Denis and Osobov, 2006).

1.3 Investors

1.3.1 Types of investors

In US public companies ownership is divided among many investors; to generalize there are two main types of investors: the large investor and the small investor. These two macro-groups differ from one another in how much information they hold on the company they invest in; large investors (also called institutional investors), are professional, informed shareholders who are highly motivated to monitor the company and the capital market, being majorly involved in view of the huge sums they manage. Large investors not only have the motivation and duty to monitor the market (as they themselves gather the investments of smaller shareholders) but also the know-how to identify the optimal form of payout policy that best increases their own utility. Such high levels of information and involvement by institutional investors in the capital market is seen favorably by management as they can benefit from the presence of these large investors, using them as guarantors of their company operations (i.e. M&A). Large investors therefore, are the first stakeholder management considers in its daily decisions on company activities.

The second macro-group mentioned above – the small investor– comes after the institutional investor. The small investor is typically the shareholder who has neither the resources nor the technical knowledge to monitor Management’s work and decisions with the same accuracy and effectiveness of the professional investor. Small investors are also generally pooled by large institutional funds, such as mutual and pension funds, and are therefore subjected to the opportunism of the management of both the company and the institutional fund. There are of course laws and regulations in place to protect small investors in situations where they are disadvantaged due to the information gap, for instance the “prudent man rule”, but, nevertheless, their interests are represented by third parties who have their own interests to look after as well.

Much of the stock-holding of large public companies is in the hands of several types of investors who can influence management choices regarding corporate payout policy. Institutional investors, especially, are the ones with the greatest influence on policy, those whom management must take into consideration as they decide how to employ free cash flow.

Among institutional investors, such as banks, hedge funds, mutual funds, insurance companies and pension funds, these last play a major role (especially in the US market) in directing management as regards fund allocation as they are the main holders of dividend stocks.

Investors differ from one another in the degree of tolerance of risk, taxation and level of information; different tax rates, as previously mentioned, can influence the choice between dividend and share repurchase; in particular in the US, shares held by investors in pension funds are not subject to taxation on dividends nor on capital gains and represent the larger amount of all the dividend paying shares in circulation in the capital market. Management, therefore, will be more inclined to favor a pension fund's choice if this group of investor holds a significant share in the company. Differences in tax options create the so-called "client effect", whereby a company's dividend policy is optimized according to the tax choices of its investor clientele (Allen and Michaely, 2003, in Constantinides 2003).

Company investors (especially when many are grouped together) possess, therefore, significant bargaining power *vis a' vis* management, as, according to the "Wall Street Rule", they can sell their shares if they are not satisfied with the management's work (for example concerning payout policy). In this way, investor pressure can overcome the so-called "management entrenchment" phenomenon and drive management to distribute liquidity. The management entrenchment theory, relative to payout policy, holds that managers choose a low leverage and keep high cash reserves in order to avoid debt procedures that could damage their reputation.

1.3.2 Small investors' preferences for dividends

Tax preferences, as mentioned in subsections 1.1.2, can have a major role in directing the investor's decision towards dividends or share repurchase. In some cases, however, investors would prefer the manager to distribute dividends instead of buying back shares, despite the tax disadvantages of dividends (especially in the case of small investors). There may well be, therefore, other reasons, more related to the psychology and behavior of the investor rather than tax incentives, which can explain an investor's decision (Constantinides, 2003).

Even greater confirmation that investors' preferences are not always based on taxation issues can be observed in the case of pensions. US pension and mutual funds bring together the investments of a myriad small investors which are not subject to dividend or capital gains taxation; hence, taxation cannot be considered to be the primary reason behind the small investor's choice. There are, however, other explanations that can help us understand an investor's apparently curious behavior. Three shall be considered below.

The first concerns the law of the “prudent man”; this requires institutions in the US such as pension and mutual funds, to purchase dividend-paying stocks as they represent the interests of a type of investor who is more exposed to the agency cost issue. The second concerns transaction costs: investors who need a steady income from their investments prefer to receive a regular amount at established time intervals rather than sell their shares to obtain a capital gain, as the transaction costs of disinvesting (brokerage commissions, time spent, endeavor) would outstrip the taxation disadvantages of dividends (especially for small investors who need dividends for “consumption reasons” (Constantinides et al, 2003)).

The third explanation, developed by Shefrin and Statman (1984) attributes to the investor’s psychology the primary reason behind payout preferences. Dividends can be used by investors to manage the self-control problem (Thaler and Shefrin, 1981): this issue applied to payout preferences would suggest that if an investor can choose how much to spend, it is likely they will spend more than they can afford; dividends would be a way of removing this decision from the subjective sphere of the investor, making him spend only such monies as are paid in the form of dividends; instead, if the investor gained only by selling his shares, there is the risk he would not control himself and so liquidate a higher percentage of his shares than he actually needs. As illustrated by Constantinides et al (2003), Shefrin and Statman’s theory affirms that “by having money in the form of dividends rather than capital gains, people avoid having to make decisions about how much to consume. Thus, they avoid letting the agent in them behave opportunistically”.

Small investors tend, therefore, to prefer dividends to share repurchases. Due to the adverse selection and consequently asymmetric information between management and investor, small investors tend to consider dividends to be more secure remuneration compared with share repurchases. As in Akerlof’s “market of lemons”, small investors will always prefer dividends to repurchases even in situations when share repurchases are more economically advantageous (thanks, for example, to the different taxation).

1.3.3 Large investors’ preferences for repurchases

Institutional investors, unlike small investors, are less concerned with the adverse selection problem as they possess a high level of information and have greater involvement in the company’s activities: involvement that, as mentioned before, is often also encouraged by the company itself as they can benefit from the presence of professional shareholders in situations like takeovers. Although the small investor will tend to prefer dividends for the reasons noted above, large investors can have equally important reasons for receiving dividends but also for repurchases. The dividend reason is related to the limitations imposed by law, such

as the “prudent man-rule” (especially for pension funds) and the requirements of the small investors they represent and whose resources they are charged to manage (steady cash payments in the form of dividends). The repurchase reason is related, instead, to the tax advantage that institutions have for share repurchases: they prefer management to distribute resources in the form of repurchases as they are less costly both for the company’s finances and for them.

Granted that regulations, tax advantages and risk tolerance can vary among large investors, institutional investors will likely seek a payout policy that satisfies their needs regarding both dividends and share repurchase payouts.

1.4 Research Question

The literature review presented in the first part allows us now to concentrate on the main question to be answered with this study: “Does payout policy inform us about the quality of management?”. Regarding payout policy, there are two main parties to consider carefully: managers and investors/shareholders. We believe large investors rather than small investors represent the type of shareholder that is more likely to influence management’s decisions on payout policy for the reason stated in the previous sections; therefore, the first part of the survey will investigate the ownership of institutional investors in US public companies that present a different payout policy: the hypothesis being that large investors own a significant number of shares in companies that present a payout policy that satisfy the investors’ needs, needs that take the form of repurchases and dividend payments as far as payout policy is concerned. Starting from previous academic research, by economists Michalek and Grinstein (“Institutional holdings and payout policy“, 2005), the aim is to identify as precisely as possible these large investors’ preferences.

The second part, instead, will look at the manager’s side and theorize which are the main key points that helps one judge the quality of management. The research question posed is relevant not only because of the sums involved in payout policy but also because this type of policy is crucial in the relationship between managers and shareholders, who are the main actors in any public company. The questions to be answered in the survey that appears in the next section are:

- Do institutional investors prefer a certain type of payout policy?
- If some general preferences can be identified, can the management’s work be judged upon whether or not it considers investors’ requests?

2 Method

2.1 Quantitative Research

The research design chosen for the study is the quantitative method. The choice here fell on the quantitative method primarily because of the need to have available a large amount of data for several trends of the firms considered (including the number of shares, stock prices, earnings, dividends and share repurchases). The qualitative method could have been used alongside the quantitative research as counter evidence of the implications drawn from the analysis of the data, had it possible to interview managers directly; however, it is believed that the quantitative research will prove an equally useful method to find a pattern in the decision-making process of managers regarding payout policy.

The quantitative method (or quantitative research) is generally used for social and natural sciences (such as physics, sociology, marketing, economics and political sciences) to study observable phenomena, systematically, through empirical observation (direct and indirect) and investigation; after the initial part involving gathering information and findings, data are analyzed using various techniques, using statistical, computational and mathematical tools. Quantitative research is based on the use of scientific theories, theorems, hypotheses and mathematical models to give a plausible explanation of the phenomena considered.

Data collection, in quantitative research, is characterized by a low degree of interaction with the respondent, resulting in a lower risk of data contamination by the researcher (the exact opposite of qualitative research which uses various types of interviews, such as diagnostic, information and composite interviews, as the main means to collect data, and where contamination is more likely to occur due to the closeness between interviewer and interviewee). An essential feature of quantitative analysis is the formalism that characterizes the procedures: the collection, processing and use of data matrix and the use of statistics follow defined and easily replicable protocols. This high formalization allows the researcher to detect and store a large amount of information with highly standardized tools (that are also rigid).

2.2 Research Field

2.2.1 Field of inquiry

The field of research covers publicly-traded US companies and US institutional investors. Analysis of the data gathered proceeds in two steps. In the first part (presented in Section 2.3) the data from an existing academic article (“Institutional Holdings and Payout Policy”, from the Journal of American Finance Association (2005), by Grinstein and Michaely) on institutional ownership in US public companies during the period 1980 and 1996 is considered. In the second 100 US publicly-traded companies as of beginning of 2019 will be looked at and institutional ownership quantified for each company. The public companies sampled for the second part were chosen from the Nasdaq, the second largest stock exchange in the world, after the NYSE, using the Nasdaq dividend yield index, which ranked 949 US public companies from highest dividend yield stocks to lower dividend yield stocks (from the period February-April 2019), as a source for the companies selected for the sample. The companies are shown in three tables: Table 5, the 25 lowest dividend yield stocks present in the Nasdaq dividend yield index; Table 6 the 25 highest dividend yield stocks; and in Table 7, 50 companies with a medium dividend yield. Following Grinstein and Michaely, financial and utility companies were excluded from the sample. Table 5 is presented in section 2.3 below, while Table 6 and 7 are in the Appendix.

2.2.2 US public companies

The choice of focusing on US institutions and public companies was driven by the need to dispose of a group of firms and investors that would be representative for our analysis of manager-investor relationship and the resulting effects on payout policy. US public companies are characterized by the presence of large investors and a myriad of small shareholders; in such a structure there is not a main equity holder that can direct the decisions of managers; the management of such companies can therefore escape shareholder control more easily compared to other countries, such as France, Germany, Japan, and the UK, where there is often a main shareholder holding the majority of the shares (a bank, a founding member or a family). Analyzing exclusively US firms can therefore allow us to focus on large publicly-traded firms, where conflicts of interest are most severe, especially concerning cash flow distribution. The free cash flow problem is more likely to occur and is more significant in the case of huge amounts of liquidity whose use is mainly decided by the managers of large companies: US publicly-traded companies represent therefore an optimal sample for this study which aims to investigate manager-investor conflict of interest and its effects on payout policy.

2.2.3 Two researches combined

The first part of the study, based on past academic research into institutional investors and public companies in the US, represents an optimal picture of the situation between 1980 and 1996 of institutional holdings ownership in publicly-traded firms; 1980 also, represents the beginning of the share repurchase policy by US firms. The second part, instead, continues the analysis started by Grinstein and Michaley of institutional investors' ownership in publicly-traded companies in the US, by providing empirical confirmation of large investors' preferences regarding dividend policy. Finally, the results from both these inquiries are compared explanations set out in Section 3.2 below.

While Grinstein and Michaely analyse how institutional ownership varies among companies with different forms of dividend and share repurchases payouts, the present study involving the 100 sample companies will focus on dividend payments only.

2.3 Data Collection

2.3.1 Grinstein and Michaely's findings

Firstly, the four tables from Grinstein and Michaely on the ownership percentage of institutions in US publicly-traded companies between 1980 and 1996 are given below. The institutional investors considered are those with a total investment of more than 100 million dollars, whose data regarding institutional stocks were gathered from section 13F of the U.S. Security and Exchange Commission (SEC). Among the subjects that are required by law to show their investments in shares and total value under section 13F of SEC, can be found also those institutional investors with "investment discretion over 100 million dollars", including pension funds, mutual funds, bank trusts, hedge funds, insurance companies and investment advisors. The firms whose shares the institutions own are US publicly-traded companies, again from the period between 1980 and 1996, with the exclusion of utility and financial companies; the total number of firms sampled is 79,010 grouped into 5 classes by size of company in terms of market capitalization.

Table 1 and Table 2 show the percentage of shares owned by institutional holdings in dividend paying and non dividend paying firms and in firms paying low, medium or high dividends. Table 3 and Table 4, instead, show ownership of institutional holdings in repurchasing and non repurchasing firms and in firms that pay low, medium and high repurchase prices. Each table is divided into 5 quintiles, on the basis of company size, and presents the median and mean (in brackets) value percentage, and the number of observations (under the column flagged #), each unit corresponding to a publicly traded firm. The sixth row

presents the total value weighted median and mean and the total number of observations for each category. The rationale behind the distribution of observations, by Grinstein and Michaely, was to have available an equal number of units for the three categories: low, medium and high dividends, and low, medium and high repurchases; this rationale can be noticed both in Table 2 and Table 4 a: the number of observations is equally distributed among the three categories (6410, 6466 and 6522 observations for dividend paying firms) and (4031, 4030 and 4031 observations for repurchasing firms).

Table 1

<i>Size Quintile</i>	<i>Non Paying</i>			<i>Paying</i>		
	<i>Median Institutional Holdings</i>	<i>Mean Institutional Holdings</i>	<i>#</i>	<i>Median Institutional Holdings</i>	<i>Mean Institutional Holdings</i>	<i>#</i>
Lowest	0.68	(6.46)	13356	4.60	(8.32)	449
2	5.51	(10.74)	12218	9.79	(13.48)	1589
3	14.85	(19.76)	10883	18.56	(21.83)	2927
4	26.82	(31.01)	8585	30.70	(32.60)	5225
Highest	44.48	(43.32)	4608	49.56	(48.08)	9208
Total	8.99	(18.09)	49650	36.29	(36.20)	19398

Source: Grinstein and Michaely (2005)

Table 2

<i>Size Quintile</i>	<i>Paying-Low Div/Book</i>			<i>Paying-Med. Div/Book</i>			<i>Paying-High Div/Book</i>		
	<i>Median Institutional Holdings</i>	<i>Mean Institutional Holdings</i>	<i>#</i>	<i>Median Institutional Holdings</i>	<i>Mean Institutional Holdings</i>	<i>#</i>	<i>Median Institutional Holdings</i>	<i>Mean Institutional Holdings</i>	<i>#</i>
Lowest	7.05	(12.11)	139	3.92	(6.79)	148	2.57	(6.47)	162
2	9.31	(13.51)	518	10.69	(14.48)	530	9.34	(12.48)	541
3	19.03	(23.09)	965	20.22	(22.97)	975	16.48	(19.46)	987
4	31.64	(33.79)	1729	32.11	(33.65)	1743	28.77	(30.38)	1753
Highest	50.51	(49.13)	3059	50.76	(49.50)	3070	47.74	(45.63)	3079
Total	36.86	(37.39)	6410	37.79	(37.38)	6466	34.20	(33.85)	6522

Source: Grinstein and Michaely (2005)

Table 3

<i>Size Quintile</i>	<i>Non Repurchasing</i>			<i>Repurchasing</i>		
	<i>Median</i>	<i>Mean</i>	<i>#</i>	<i>Median</i>	<i>Mean</i>	<i>#</i>
	<i>Institutional Holdings</i>	<i>Institutional Holdings</i>		<i>Institutional Holdings</i>	<i>Institutional Holdings</i>	
Smallest	1.45	(7.31)	7088	2.83	(6.82)	1575
2	8.83	(14.54)	6947	12.62	(15.66)	2022
3	21.78	(25.22)	6318	25.30	(27.92)	2298
4	36.87	(38.57)	5699	39.30	(39.89)	2547
Largest	53.90	(50.43)	4841	54.11	(52.07)	3650
Total	12.94	(25.12)	30893	24.40	(32.93)	12092

Source: Grinstein and Michaely (2005)

Table 4

<i>Size Quintile</i>	<i>Paying-Low Repurchase</i>			<i>Paying-Medium Repurchase</i>			<i>Paying-High Repurchase</i>		
	<i>Median</i>	<i>Mean</i>	<i>#</i>	<i>Median</i>	<i>Mean</i>	<i>#</i>	<i>Median</i>	<i>Mean</i>	<i>#</i>
	<i>Institutional Holdings</i>	<i>Institutional Holdings</i>		<i>Institutional Holdings</i>	<i>Institutional Holdings</i>		<i>al Institutional Holdings</i>	<i>Institutional Holdings</i>	
Lowest	4.39	(7.92)	525	2.16	(5.92)	525	2.20	(6.63)	525
2	12.96	(16.41)	674	12.60	(15.29)	674	11.92	(15.30)	674
3	25.15	(28.10)	766	25.05	(27.73)	766	25.67	(27.94)	766
4	38.84	(39.61)	849	38.35	(39.28)	849	40.59	(40.77)	849
Highest	51.83	(49.87)	1217	54.18	(52.42)	1216	55.70	(53.88)	1217
Total	30.04	(32.53)	4031	30.47	(32.76)	4030	32.54	(33.51)	4031

Source: Grinstein and Michaely (2005)

2.3.2 Nasdaq dividend yield index

Table 5 gathers the 25 US companies, chosen from the Nasdaq index, with the lowest dividend yield gathered in ascending order. Next to the dividend yield is shown the annual dividend (in \$ as of 2019), the institutional ownership and the business sector. The last row presents the average mean for the three parameters. Table 6 and Table 7, which show the data on institutional ownership for firms that pay medium and high dividends are presented in the Appendix.

Table 5

Company	Dividend yield	Annual dividend (\$)	Institutional ownership	Industry
Encore Wire Corp.	0,14%	0,08	86,10%	Capital goods
Pegasystems Inc.	0,17%	0,12	47,04%	Technology
Universal Display Corp.	0,24%	0,40	80,77%	Capital goods
Mesa Laboratories, Inc.	0,25%	0,64	71,24%	Capital goods
Coca-Cola Consolidated, Inc.	0,27%	1,00	51,93%	Consumer non durables
Allied Motion Technologies, Inc.	0,32%	0,12	48,50%	Capital goods
The Ensign Group, Inc.	0,36%	0,19	81,86%	Health care
NVIDIA Corp.	0,38%	0,64	70,41%	Technology
Bruker Corp.	0,38%	0,16	69,19%	Capital goods
Multi-Color Corp.	0,40%	0,20	77,88%	Miscellaneous
Heartland Express, Inc	0,41%	0,08	60,63%	Transportation
Cognex Corp	0,43%	0,20	97,77%	Capital goods
Wingstop Inc.	0,45%	0,36	108,42%	Consumer services
Old Dominion Freight Line, Inc.	0,47%	0,68	71,15%	Transportation
Olympic Steel, Inc.	0,50%	0,08	64,34%	Basic Industries
RCI Hospitality Holdings, Inc.	0,53%	0,12	48,77%	Consumer services
Winmark Corp	0,56%	1,00	54,36%	Consumer services
MGP Ingredients, Inc.	0,59%	0,40	114,98%	Consumer non durables
Ebix, Inc.	0,59%	0,30	78,27%	Technology
Insteel Industries, Inc.	0,60%	0,12	81,70%	Capital goods
Blackbaud, Inc.	0,60%	0,48	104,71%	Technology
Landstar System, Inc.	0,61%	0,66	103,23%	Transportation
QAD Inc.	0,61%	0,29	54,74%	Technology
Atrion Corp	0,61%	5,4	60,88%	Health care
Marten Transport, Ltd.	0,61%	0,12	67,55%	Transportation
Total	0,44%	0,55	74,26%	Standard Deviation: 19,76%

Source: Nasdaq official site: <https://www.nasdaq.com/dividend-stocks/>. Own processing.

2.4 Data Treatment

The quantitative data collected in the sample of 100 companies were processed using statistical analysis. For the first part of Data Collection, findings by researchers Grinstein and Michaely were used, who had already organized the data on the companies by size quintiles, median and mean of ownership. Instead, for the second part, in the sample of 100 companies listed in the Nasdaq dividend yield index for each company was calculated the ratio of the total value of shares held by institutional investors to the overall value of the share of every considered company and its standard deviation.

The computation process was possible using the tools present in the Nasdaq site database. The derived data was then grouped using Excel into three different tables, each presenting three parameters: dividend yield, annual dividend and the percentage of institutional ownership. Each table presents in the last row the total average mean for the dividend yield (the ratio of dividends distributed to stock price), the total average mean for the annual dividend and the total average mean of the institutional ownership; then the standard deviation of the institutional ownership percentage for each table was calculated (also present in the last row of every table). While for Table 5 and Table 6, the sample companies were selected, taking the top and bottom 25 companies from the Nasdaq dividend yield index, for Table 7 from the same index, 25 companies were selected with the lower annual dividend value and 25 companies with the higher annual dividend value, in order to get a medium dividend yield average (Table 6 and Table 7 are in Appendix).

3 Results

3.1 Results Presentation

The following part shows the raw results of institutional ownership of the 100 companies selected and the results from Grinstein and Michaely (2005) findings, integrated with our observations. Results from Tables 1 to 4 are presented and subsequently the results generated by the analysis of the sample of 100 companies (Tables 5, 6 and 7).

Table 1 shows that the institutional ownership total mean is higher for firms that pay dividends than firms that do not pay dividends: 36.20% against 18.09%, respectively; looking then, at every size quintile (from 1, the lowest to 5, the highest), the trend is the same. It is interesting to note that for the highest quantile, the percentage of institutional ownership is 48.08% with a median value of 49.56% for paying firms and 43.32% with a median of 44.48% for non paying firms.

Table 2, considering only firms that pay dividends, show a total mean percentage of institutional investors ownership, for firms that pay low, medium and high dividends of 37.39%; 37.38% and 33.85% respectively. Considering the different size quintiles, the average mean of low and medium dividend paying firms do not always correspond to the total mean (in three out of five size quintiles low dividends present a higher institutional ownership percentage than medium dividends, as happens for the total average mean), however, firms that pay high dividends always show a lower mean than low and medium dividends for every size quintile; considering , again, the highest quintile (containing the firms with the highest market capitalization), results are 49.13% with a median value of 50.51% for firms that pay low dividends; 49.50% with a median value of 50.75% for firms that pay medium dividends and 45.63% with a median value of 47.74% for firms that pay high dividends.

Table 3 presents ownership by institutional holdings in repurchasing and non repurchasing firms: these investors own 32.93% and 25.12% respectively; such preference by investors for repurchasing shares rather than non repurchasing shares is confirmed for the different quintile sizes except for the smallest where non repurchasing is 7.31% value and repurchasing 6.82%. Considering the largest quintile the percentage is 50.43% with a median value of 53.90% and 52.07% with a median value of 54.11% for firms that pay repurchases and for firms that do not pay repurchases, respectively.

Table 4 shows the percentage shares owned by institutional holdings in the repurchasing firms: the total mean of the percentage of institutional investor ownership, for firms that pay low, medium and high repurchases is 32.53%; 32.76% and 33.51% respectively. Considering

the total average mean and every size quintile, no common pattern is apparent in investor preference for low, medium and high payments, as could be seen in Table 2 for dividend paying firms; there is no result that suggests investors definitely prefer low, medium or high repurchases: i.e. in the three first quintiles (starting from the lowest), low repurchase is always higher than medium and high repurchase; instead, in the remaining two quintiles, medium and high repurchases present a higher ownership percentage than low repurchases: in the largest size quintile, Table 4 shows that high repurchases present a mean of 53.88% with a median value of 55.70%; medium repurchases present a mean of 52.42% with a median value of 54.18% and low repurchases 49.87% with a median value of 51.83%.

The e results of the sample of 100 companies gathered to identify large investors' preferences regarding dividend policy, in Table 5 shows that, for companies with the lowest dividend yield value (the ratio of dividends distributed to the stock price), the total institutional ownership mean is 74.26% with a total mean dividend yield of 0.44% and a mean annual dividend of \$ 0.55; the standard deviation of institutional ownership is 19.76%. Table 6, considering companies with the highest dividend yield, listed in descending order, presents the following results: the total ownership mean for institutions is 48.48% with a total dividend yield of 9.23% and a mean annual dividend of \$ 1.29; the standard deviation of institutional ownership is 27.98%. Table 7, which gathers the data on institutional ownership from 50 US companies with a medium dividend yield, presents the following results: the total institutional ownership mean is 70.17%, the total dividend yield mean is 2.21% and the mean annual dividend \$ 1.98; standard deviation of ownership is 26.57%.

3.2 Results Analysis

To proceed to an analysis of the results obtained from the study and from Grinstein and Michaely' findings: focusing exclusively on the latter, the results imply that institutional investors preferred (during the period 1980-1996) firms that pay dividends over firms that do not distribute dividends (36,20% against 18,09%) and among firms that do pay dividends preference is given to low and medium dividend paying firms (37,39% and 37,38%, respectively) to high dividend paying firms (33,85%). Even though there would appear to be no dominant trend in Table 2, it is safe to say that institutional investors do not necessarily want to invest in high dividend paying firms; such a tendency from this type of investor is confirmed also by each size quintile.

The second significant result to be highlighted from Grinstein and Michaely's research is that institutional investors prefer firms that pay repurchases to firms that do not (32,93%

against 25,12%) and across repurchase paying firms, the ones that pay medium and high repurchases are favored (32,76% and 33,51%) over firms that pay low repurchases (32,53%); even though this trend is not confirmed for every size quintile, the overall mean suggests that institutional investors tend to avoid firms that do not pay repurchases and firms that pay low repurchases: this is especially true for firms that belong to the highest size quintile.

Grinstein and Michaely's research confirm our hypothesis that institutional investors have preferences regarding the payout policy: they invest more in firms that distribute their resources (in terms of cash flow), through dividend and share repurchases, than in firms that avoid remunerating their shareholders: the results show that repurchasing and dividend paying firms present higher institutional ownership than firms that present a limited payout policy with no resources given to shareholders at all. Table 1 and Table 3 provide proof of such preferences by large investors: it is useful to underline once more that dividend paying firms show an average total mean higher than firms that do not pay dividends: 36,20 % of institutional ownership, while non paying firms return an average of 18,09 % ownership; then, repurchasing firms as well are preferred to firms that do not buyback their shares: repurchasing firms present an average total mean of 32,93% of institutional ownership while non repurchasing firms an average total mean of 25,12%.

As previously mentioned in the literature review section, the reason why large investors want the firms they invest in to distribute the liquidity obtained during the business year to equity holders is that they need a return on their investments. In the capital market where the stocks of publicly traded companies are regularly traded, the return on investments for equity holders is commonly obtained through capital gains: in this way investors obtain a profit by liquidating all or some of their shares. Obviously capital gain can be had also in the absence of any form of payout policy (dividend and share repurchase); investors, therefore, by investing more in paying firms than in non- paying firms, prove that, besides the common capital gain obtained by selling the shares at a higher price than that at which they were previously purchased - a gain made possible by the growth of the stock price resulting from the firm's activities during the business year - they expect the firm to distribute free cash flow as well as a return of the risk they take by giving resources to the firm.

Furthermore, such distribution of free cash flow by a firm (either in the form of dividends or share repurchases) can have an impact on the stock price of a company (i.e. a rise in the level of dividends and share repurchases can make the stock price rise in the event that capital markets consider such distribution as a positive sign regarding the company's resources and health), thereby benefitting the shareholder twice: the investor receives a dividend and sees

the stock price rise as well, or in case of share repurchase, obtains a higher capital gain than he would have obtained if the market did not consider payout policy changes.

It is useful to recall that while share repurchase benefits the investor in the same way as a common capital gain, as when the company buys back some of its shares the price of each stock rises, dividends benefit the shareholder directly through cash payments. Such a difference between these two forms of payout help explain the different trend in the level of payments for dividends and repurchases (comparison between Table 2 and Table 4): investors prefer low and medium payments for dividends and high payments in the case of share repurchases (even though for share repurchases this preference is statistically significant only for companies that belong to the highest size quintiles 4 and 5). A reason for such disparity can be found considering the taxation differences between these two forms of payout: dividends are, from a taxation point of view, more disadvantageous economically than repurchases; large investors, therefore, invest more in companies that pay high share repurchases (as they want to receive a return on their investment) and buy stock shares that distribute low and medium dividends (reasons why they keep requiring companies to distribute dividends, instead of having companies with a payout policy that totally avoids paying dividends, are the small investors' preferences, as mentioned in the literature review and regulation and institutional charts).

Investor preference for low and medium dividends is confirmed by the survey of the sample of 100 companies selected from the Nasdaq index; the results summarized in Table 5, 6 and 7 show: large investors have their shares mainly in firms that pay low and medium dividends (74,26% and 70,17%, respectively) and tend to invest less in firms with a high dividend yield (48,48%). Such results confirm, therefore, the hypothesis that investors are not indifferent to the form of payout but in fact do have some preferences regarding companies' dividend policy; precisely, low and medium dividends.

Comparing these findings on institutional investors' preferences concerning dividends with those of Grinstein and Michaely on dividend policy excluding, therefore, share repurchase results from Table 3 and Table 4), the conclusion that can be reached looking at both the inquires is that the trend of institutional investors' preferences is similar: Grinstein and Michaely demonstrated that investors tend to prefer low and medium dividend paying firms as do the companies analyzed here in this study. It can be noticed that the percentage of institutional ownership has grown for all three types of dividend paying companies (low, medium and high): for low paying dividends the increase is from a ratio of 37,39% in the period between 1980-1996 to 74,26% in 2019; for medium paying dividend firms, from 37,38% to 70,17% and for high dividend, from 33,85% to 48,48%. The disparity in the ownership percentages from 1980-1996 to 2019, is due to the different periods of time the two enquiries

were made: the analysis of the two academics dates back to 1980-1996, whereas this present research was conducted on a selection of sample companies from the 2019 Nasdaq index on dividend yields. Between the two periods, institutional holdings in public companies has significantly increased, which explains the higher results. Furthermore, these results show that the institutional ownership percentage has increased proportionally for both low and medium paying dividends firms, while in the case of high dividends, the percentage has increased but less significantly. While the significant increase in ownership can be proved by the expansion and growth of institutional investors, the differences between low/medium and high uptrends, can be explained by the fact that since the mid- 1980s, US regulations on company repurchasing of their own shares has spurred US public companies to distribute liquidity with share repurchasing (capital gains) instead of distributing dividends. Thus, large investors started to invest more in firms paying low and medium dividends (in order to satisfy the requests of their clients, who still wanted dividends, and to comply with “the prudent man rule” imposed by US Finance law) and less often in high dividends (as less advantageous from a taxation point of view).

The results obtained are aligned with the academic theory on payout policy and investors’ characteristics mentioned above (Sections 1.3.2 and 1.3.3). The Institutional investor is the main type of stakeholder that management, in publicly traded companies, considers due to the high number of shares they own and to the strategic role they can play in boosting the company’s reputation. The management in every public company will, therefore, try to satisfy the large investors’ requirements in term of payout policy. In the same way as management has to take into consideration its investors’ requirements, so also are large investors compelled to for their own small investors. Therefore, the main reason why we keep seeing companies pay dividends rather than only repurchasing shares is the fact that large investors want to receive dividends because of financial (prudent man rule) and customer (small investors’ needs) restraints.

Considering the limitations and potential errors that might weaken the results arrived at, one limitation of the research which must be pointed concerns the sample of companies assembled. The sample looks at 100 companies, whereas Grinstein and Michaely consider more than 79,000 units. As the significant standard deviation shows, especially for firms with a high dividend yield (Table 6), the restricted number of publicly traded companies chosen here, may influence the accuracy of the overall results. It might follow, therefore, that the difference in percentage ownership resulting here for institutional investors compared to that of Grinstein and Michaely could be lower (or higher) than found here. However, the very sources exploited for the data collection are themselves a guarantee of reliability. The 2019 Nasdaq dividend yield

index and the other sources used to calculate holdings by institutional investors in our sample of 100 companies do not undermine the accuracy of the main results.

A further element to be taken into account when considering factors that could have influenced the research is the time period. The different period considered could weaken the comparison between the two surveys: in an attempt to prove a continuum with past academic research the differences between the referenced time periods may have been underestimated, with the risk that any comparison of the present sample with past quantitative researches would prove useless. However any such difference should only minimally, if at all, affect overall results as the sample is supported by academic theories and models.

These limitations aside, Bearing in mind these limitations, the overall results from both the research studies would nonetheless validate the hypothesis that investors do have some preference regarding payout policy and, considering exclusively dividends distribution, it was found that institutions in the US tend to invest more in public companies that pay low and medium dividends and are not attracted to high dividend paying companies.

3.3 Managerial Implications

What does this mean for management quality standards in terms of payout policy decisions? The second question presented in subsection 1.4: “If some general preferences can be identified, can the management’s work be judged upon whether or not it considers investors’ requests?”. As demonstrated in the analysis of results, institutional investors do present a general preference regarding free cash flow distribution: investors tend to prefer firms that pay dividends and repurchase shares to those that do not pay, and among paying firms, the ones that distribute low and medium dividends and pay high repurchases are preferred. The advice, therefore, for managers of any public companies is that they should consider the following aspects when deciding how to address payout policy:

1. Large investors: if the main equity holders of a company consist of institutional investors, managers should meet their needs; both past academic papers and this present research show that large investors (especially in the US) own a higher amount of shares in public companies that distribute low and medium dividends and pay medium/high repurchases; distributing high dividends is no guarantee that investors will be attracted and it is also more expensive for the company as it significantly reduces the amount of resources that could otherwise be invested in new projects or set aside as reserves.
2. Small investors: if the company has a significant number of small investors among its shareholders or there are pension or mutual funds owning many shares, management should consider distributing medium or even high dividends for the following reasons:

pension and mutual funds (especially in the US) have to follow the prudent man rule; small investors often prefer to receive a constant fixed dividend as the transaction costs of selling their shares might be higher than the capital gains they obtain; the “self-control theory” which holds that investors prefer a certain type of liquidity distribution as they fear they would spend more in the case of capital gains (the so-called “homemade dividends”) than they would with dividends.

3. Market expectations: the stock market generally views a cut in dividends or share repurchases negatively; management, therefore, should think carefully before raising the level of dividends distributed, for subsequently turning back to a lower level could lead investors to suspect the firm does not have not the resources necessary to fulfil its obligations.
4. Taxes: dividends are subject to higher taxation than capital gains; therefore, from a taxation point of view, managers should distribute more liquidity in the form of share repurchases than as dividends and in the event of dividends distribution, should avoid high dividends.

Conclusion

The aim of this study was to answer the following question: ‘Does payout policy inform us about the quality of management?’ In order to identify the key points that influence the work of management, firstly past academic literature on payout policy was viewed. The data gathered from these studies showed that investors prefer firms that repurchase shares and distribute low and medium dividends. In the next step, it was shown that the preferences of institutional investors remained the same in terms of dividends, as set out in the study by Grinstein and Michaely. The results of this present research show that large investors still prefer firms paying low dividends to firms paying high dividends. This fact can be accounted for in several ways: the most prominent, the tax advantage institutional investors gain when receiving share repurchases instead of dividends.

Empirical observations outlined above prove that institutional investor choice is driven by a particular distribution of the company wealth. The next step was to link investor preference with management decision as regards payout policy. Public companies benefit from the presence of institutional investors, who nowadays represent more than half the total shares in circulation. Therefore, the evidence obtained would suggest that even though managers do not adjust their payout policy according to investors’ requests, they do take them into consideration and modify their strategy in order to safeguard long-term value for this important group of stakeholders.

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Appendix

Table 6

Company	Dividend yield	Annual dividend	Institutional ownership	Industry
Golar LNG Partners LP	13,97%	1,62	34,36%	Consumer services
New York Mortgage Trust, Inc.	13,27%	0,80	44,42%	Consumer services
Green Plains Partners LP	12,74%	1,90	27,78%	Basic industries
Salem Media Group, Inc.	12,62%	0,26	31,63%	Consumer services
AGNC Investment Corp.	12,41%	2,16	70,25%	Consumer services
Capital Product Partners L.P.	11,95%	1,26	31,18%	Transportation
Tremont Mortgage Trust	11,00%	0,88	20,28%	Consumer services
American Finance Trust, Inc	10,88%	1,10	16,59%	Consumer services
Landmark Infrastructure Partners LP	9,58%	1,47	17,19%	Consumer services
Sabra Health Care REIT, Inc.	9,34%	1,80	87,37%	Consumer services
National CineMedia, Inc.	8,91%	0,68	94,73%	Consumer services
Gladstone Capital Corp.	8,90%	0,84	11,82%	Consumer non durables
Capital Southwest Corp.	8,62%	1,52	54,14%	Consumer non durables
Big 5 Sporting Goods Corp.	8,51%	0,2	54,81%	Consumer services
TiVo Corporation Institutional	8,21%	7,56	92,85%	Miscellaneous
Manhattan Bridge Capital, Inc	8,11%	0,48	14,11%	Consumer services
Advanced Emissions Solutions, Inc.	7,71%	1,00	72,74%	Basic industries
Senior Housing Properties Trust	7,25%	0,60	72,68%	Consumer services
Global Self Storage, Inc.	7,04%	0,26	17,71%	Consumer services
Sotherly Hotels Inc.	7,03%	0,50	29,49%	Consumer services
Psychemedics Corp.	6,88%	0,72	56,36%	Health care
Gaming and Leisure Properties, Inc.	6,86%	2,72	91,56%	Consumer services
Brookfield Property REIT Inc.	6,62%	1,32	87,54%	Consumer services
Peak Resorts, Inc.	6,31%	0,28	42,59%	Consumer services
Crown Crafts, Inc.	6,15%	0,32	37,88%	Basic industries
Total	9,23%	1,29	48,48%	Standard Deviation: 27,98%

Source: Nasdaq official site: <https://www.nasdaq.com/dividend-stocks/>. Own processing.

Table 7

Company	Dividend yield	Annual dividend	Institutional Ownership	Industry
Quaterhill Inc	3,50%	0,04	9,96%	Miscellaneous
Reven Housing REIT, Inc.	1,19%	0,04	0,29%	Consumer services
Staffing 360 Solutions, Inc.	2,40%	0,04	2,44%	
Sirius XM Holdings Inc.	0,85%	0,05	23,45%	Consumer services
DMC Global Inc. Institutional Ownership	0,12%	0,08	89,16%	Capital goods
Heartland Express, Inc	0,41%	0,08	60,63%	Transportation
RF Industries, Ltd	1,07%	0,08	30,26%	Capital goods
Encore Wire Corporation	0,14%	0,08	86,10%	Capital goods
Olympic Steel, Inc.	0,50%	0,08	64,34%	Basic Industries
Clarus Corporation	0,73%	0,10	55,34%	Consumer non durables
Office Depot, Inc.	4,78%	0,10	91,59%	Consumer services
Allied Motion Technologies, Inc.	0,32%	0,12	48,50%	Capital goods
Insteel Industries, Inc.	0,60%	0,12	81,70%	Capital goods
Marten Transport, Ltd.	0,61%	0,12	67,55%	Transportation
Pegasystems Inc.	0,17%	0,12	47,04%	Technology
RCI Hospitality Holdings, Inc.	0,53%	0,12	48,77%	Consumer services
Taitron Components Incorporated	1,97%	0,12	13,25%	Consumer non durables
Pan American Silver Corp.	1,19%	0,14	116,13%	Basic Industries
Bruker Corporation	0,38%	0,16	69,19%	Capital goods
Presidio, Inc.	1,13%	0,16	100,04%	Technology
Lifetime Brands, Inc.	1,78%	0,17	46,65%	Capital goods
The Ensign Group, Inc.	0,36%	0,19	81,86%	Health care
Beasley Broadcast Group, Inc.	5,60%	0,20	55,71%	Consumer services
Big 5 Sporting Goods Corporation	8,51%	0,20	54,81%	Consumer services
Cognex Corporation	0,43%	0,20	97,77%	Capital goods
Broadcom Inc.	3,49%	10,60	87,35%	Technology
Equinix, Inc.	2,06%	9,84	92,25%	Consumer services
Amgen Inc. Institutional	3,36%	5,80	80,79%	Health care
Atrion Corporation	0,61%	5,40	60,88%	Health care
Cracker Barrel Old Country Store, Inc.	2,96%	5,00	86,24%	Consumer services
Lam Research Corporation	2,22%	4,40	88,62%	Technology
NVE Corporation	4,95%	4,00	73,56%	Technology
Lamar Advertising Company	4,77%	3,84	95,56%	Consumer services
Pepsico, Inc.	2,94%	3,71	72,47%	Consumer non durables
Automatic Data Processing, Inc.	1,97%	3,16	81,17%	Technology
Apple Inc.	1,53%	3,08	60,93%	Technology
Texas Instruments Incorporated	2,75%	3,08	86,85%	Technology
KLA-Tencor Corporation	2,63%	3,00	92,99%	Capital goods
Wynn Resorts	2,20%	3,00	76,64%	Consumer services
Allegiant Travel Company	1,97%	2,80	81,97%	Transportation
Gaming and Leisure Properties, Inc.	6,86%	2,72	91,56%	Consumer services
Hasbro, Inc.	2,71%	2,72	90,56%	Consumer non durables
Costco Wholesale Corporation	1,07%	2,60	71,99%	Consumer services
Lancaster Colony Corporation	1,75%	2,60	54,18%	Consumer non durables
Gilead Sciences, Inc.	3,81%	2,52	79,59%	Health care
QUALCOMM Incorporated	2,96%	2,48	80,76%	Technology
WD-40 Company Institutional	1,49%	2,44	90,22%	Basic Industries
Kaiser Aluminum Corporation	2,51%	2,40	97,70%	Capital goods
Regency Centers Corporation	3,58%	2,34	99,99%	Consumer services
Coherent Communications Holdings, Inc.	4,00%	2,32	91,22%	Consumer services
Total	2,21%	1,98	70,17%	Standard Deviation: 26,57%

Source: Nasdaq official site: <https://www.nasdaq.com/dividend-stocks/>. Own processing.