

A New Piece to the "Dividend Puzzle": Low Payout Ratio Policies, Strategies of Private Benefit Extraction and Company Value

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Abstract

The logic of the Modigliani-Miller model on the "zero influence" of dividend policy on company value must be integrated into real markets with the inclusion of context factors and the psychological weight assigned to it by investors. Minority investors, when small, with low cognitive capacity and high risk aversion, are oriented "a priori" to prefer the dividend to uncertain increases in the value of the shares linked to profit reinvestment, so that any choices in the opposite direction of the majority, frequent in companies with concentrated ownership, give rise to a penalization of the market price, despite the fact that the dividend policy itself does not actually lead to discrimination against the minority. What alters the condition of equal share rights, but only in concentrated-owned companies, is the extraction of private benefits by the command group, which determines a corresponding reduction in the return of minority shareholders, as well as harming the enterprise. This extraction takes place independently of the dividend policy but is certainly favored by a systematic and massive reinvestment of profits, which, by reducing the weight of recourse to external lenders and therefore their interest in particularly assiduous and penetrating controls over the enterprise, indirectly increases the freedom of the agent to extract private benefits. It is doubtful whether the share market price incorporates the indirect effects of a profit reinvestment strategy as a shield for the agent's opportunistic maneuvers. Even the doctrinal debate on the "dividend puzzle" seems to ignore this aspect, and this paper wants to help fill this gap.

Keywords: Dividends, private benefits, equal share rights, company value

1. Introduction

The age-old dividend policy controversy has created, a "dividend puzzle," as Black (1976) called it, which is likely to result in a kind of "dividend maze". To get free of it and find a basic unitary logic, it is necessary to start from the conceptual scheme according to which the simple variation of funding sources, including the reinvestment of profits, *coeteris paribus*, simply translates into a different combination of financial risks and correlative returns, without any influence on the company value. The concept of such a simple recombination of risks, before Modigliani and Miller was hardly present in the literature and in any case only in a fragmentary and non-formalized way in an analytical model. Modigliani and Miller's model represents a founding moment in a new way of understanding finance, in which a company's entire financial policy, including its dividend policy, is completely irrelevant to the company's value itself, which does not depend on the company's financial structure but only on the activities of its balance sheet. However, this thesis is based on the very restrictive assumption of a perfect market, in which fully informed and perfectly rational individuals operate. This theoretical assumption is clearly contradicted by reality, and in fact for some time a sort of hunt for error or limits has been unleashed on the theses of Modigliani and Miller, with the highlighting of real cases in which the model fails. However, in the last thirty years, a new current of studies has increasingly established itself, that of Behavioral Finance, which examines the decisions of real operators in the light of the psychological factors that determine them. These factors act at the individual level but with possible collective convergences of various durations and give rise to deviations of the behavior of individual operators or extended masses of these compared to that of the perfectly rational operator in a perfect market. But in a unifying logic this new direction of studies, on which an autonomous branch of Neuro-finance has recently been developing, can be seen as not negating Modigliani-Miller's stylized model, but rather as adapting it to a real human world, as such completely permeable to the psychological factor, which can alter the rationality of the valuation in inverse correlation to the cognitive capacity of the shareholder.

As for the aspects relevant to our analysis, it is necessary first to investigate the true and false reasons that lead minority shareholders, and markedly those with a short-term investment horizon, to prefer a dividend to an increase in the share price that could result from the reinvestment of profits. In addition to several specific reasons given in the literature and which will be briefly mentioned, one of more general importance may be the fear that, in a real market that is not fully efficient, the effects of profit reinvestment are not only uncertain, but also deferred, so that they would benefit only stable shareholders, among whom emerges, primarily in companies with concentrated participation, the controlling shareholders. It seems no coincidence that they usually prefer to reinvest profits. However, as we will see, it would be wrong to touch the question in these terms. It is in fact demonstrable that where there is a widespread tendency of companies to keep the payout ratio unchanged for as long as possible, a share's ownership time is, all things being equal, irrelevant for the purposes of the rate of return, and so whether or not the shareholder remains permanently in the company and when his entry and exit occurs are also irrelevant. Therefore, in this respect, an "a priori" orientation of the shareholder with a short horizon towards the maximization of dividends is not rational. Undoubted alterations of both parity rights and company value are rather attributable to the agent's extraction of private benefits.

To the extent that the investors who make up the free float market intuitively perceive the existence of this phenomenon, though unable to quantify it, they penalize the market price in proportion to their risk aversion, or, rather, to uncertainty, understood as non-quantifiable risk, à la Knight.

As a result of all this, three levels of differentiation in company value are created:

- market value, influenced by uncertainty and awareness of an uneven and unequal distribution of the wealth produced by the enterprise.
- value expressed by the company's balance sheet data, which as such do not incorporate a phenomenon with hidden modes of manifestation and are therefore net of the extraction of private benefits.
- value, different from the first two and known only by the agent, and more approximately by the raiders in any acquisitions, which should be attributed to the real ability of the company to generate wealth.

A situation, therefore, of confusion of behaviors and values that seems inescapable except through a legal discipline so severe as to compress the moral hazard behavior of the command group. However, there may remain spaces that elude even the strictest laws. Perhaps better help is available from "market discipline". When such behavior is no longer tolerated by minority shareholders and any new investors, the market price of the shares may fall so much that it backfires on the company and the command group itself, as it increases the risk of hostile takeovers if the control of the command group is weak, and in any case damages the company's image and increases the cost for new funding. In other words, in the end the market still performs its disciplinary action, although, of course, only proportionally to its degree of efficiency, which is sufficiently high only in countries of Anglo-Saxon financial tradition. In this action, the market could be helped by information that can come from corporate balance sheet analysts, since from this we can deduce a similar strategy of systematic massive reinvestment of profit, in effect whether this strategy is intended to remove the undertaking as far as possible from the controls of external lenders emerges from the comparative assessment between the different sources of financing by taking into account the overall combination of financial risks together with the company's operational risks..

Functional to the analysis that will be conducted is obviously a review of the main theories concerning the dividend policy that intersect and clash in various ways with Modigliani-Miller's. After a brief mention of the most interesting aspects of the so-called 'dividend puzzle', we will examine, with a different approach from the traditional one, whether dividend policy has a distortive effect on the equality of shareholder rights and on a company's value, or whether problems of this kind should rather be traced back to other causes. This will be followed by an analysis of the connections that strategies of private benefit extraction may have with a company's self-financing, highlighting some aspects completely neglected in the literature.

2. Revisiting the literature

For the moment we should take a look at how the path of doctrine has developed both before and after Modigliani and Miller's famous theorem on the neutrality of the dividend policy on a company's value, which has been a major watershed between opposing theses, some preceding and others subsequent to the current "puzzle". Many scholars, but at times even the authors themselves, have subsequently examined in depth and pointed out the implications of this theorem (among others Miller and Scholes, 1978,1982, Miller1986, Jose and Stevens, 1989) while others have made comparisons with preceding theses or have developed partially different or diametrically opposed theses, in general or with reference to specific business situations and context (Ball et al., 1979, Baker et al., 2002, Dhanani, 2005, Fisher, 1961).

Simplifying as much as possible, we can identify two main positions that are alternative to those of Modigliani-Miller and opposed to each other. The first, in chronological order and prior to MM's work is Lintner's (1956), the second Gordon's, whose writings ranged from 1959 to 1963. Both consider, contrary to Modigliani-Miller, that the dividend policy is relevant to shareholders, with consequent repercussions on the market price of shares and thus on a company's market value.

According to Lintner, if the company distributes very generous dividends in large profit phases, and this practice continues for some time, expectations can be created in the market for its indefinite continuation. The fundamental element that can justify a high pay out, i.e., the parallel prosecution of a large profit phase, gradually declines. Therefore, if profits subsequently decrease and the company wants rationally to reduce the dividend, the market price will show a downward reaction that can be greater than that justified by the company's performance reduction. To avoid this effect, a non-volatile payment strategy must be followed. The trend towards dividend normalization can be achieved with the rule that each year's dividend distribution depends partly on current earnings and partly on the previous year's dividends. In this way a kind of weighted average is obtained between current profits and past dividends. This strategy has been variously taken up in doctrine with confirmations, corrections or variants (Bhattacharya, 1979, Miller and Rock, 1985, John and Williams, 1985, Baker et al., 2011) but always with the recognized objective of avoiding falls in the market price. On this basis it is difficult to conceive that the dividend policy is neutral toward a company's market value. In addition, it may be useful to stress that the "signal" (Fama, 1974, Ross, 1977, Asquith and Mullins, 1983, Farelly and Baker, 1989, Allen, 1992, Aharony and Dotan, 1994, Amihud and Murgia, 1997, Healey and Palepu, 1998, Baker et al. 2011, Baker and Jabbouri, 2016) given to the market by normalizing the pay-out is aimed at obtaining a deceptive *framing effect*. In other words, it is a strategy aimed at minimizing, in shareholders with low cognitive capacity, a "conscious" perception of the changes that have occurred in a company's actual performance.

Gordon's position is very different. He argues for the natural preference of shareholders for monetary dividends, being these immediate and therefore certain in comparison to a hypothetical increase in the share price that would follow from the reinvestment of profits.

Around these two different doctrinal pillars other theoretical insights revolve, which identify a variety of specific motivations to support preferences in favor of a high or, on the contrary, low payout ratio, with consequent repercussions in the same sense on a company's market value.

Most shareholders seem to prefer the total and immediate distribution of the dividend, as stated in the famous "Bird-in-Hand" (Fisher, 1961, Baker and Powell, 1999 Baker et al. 2007, Baker and Jabbouri, 2016) Adage, "a bird in the hand is worth two in the bush", based on the certainty of dividend payments against the mere possibility of substantially higher future capital gains, despite the fact that this theory suffers from many exceptions and some research evidence that investors do not look so much to the way in which the return on investment is carried out but, instead, the source of the operating cash flows, which determines the risk and value of the company (Diamond, 1967, Higgings, 1972, Pertington, 1985, Jensen et al. 1992, Kania and Bacon, 2005, Dempsey and Laber, 2009, Jabbouri and El Attar, 2018). This is something that the most sophisticated investors certainly do but it is very unlikely to be within the reach of most small shareholders.

However, things are less simple than what has been illustrated till now since minor investors are not always oriented towards dividends rather than profit reinvestment. It is well known that towards the end of the last century, shareholders completely neglected dividends because they were inebriated by the exceptional price increases that promised easy and incessant capital gains, especially for high-tech stocks. However, after the bubble burst, investors returned to preferring dividends as the most certain component of a stock's total return. Shefrin (2007), quotes in this regard an insightful passage from an article that appeared in Barron's Online on July 17, 2003, according to which "investors no longer considered dividends as something negative and obsolete, as they did in the Internet bubble of the nineties". This indicates how the psychology of the investor is a complex matter, given the confusion of ideas and the rapid changes of orientation. In fact, irrational bubbles such as that of the late 90s are the expression of a contagion due to the rapid reversal of the normal risk aversion underlying the behavior of the small investor, and which is determined by a passive following of an initial action promoted by large speculators, with the frequent financial support, moreover, of some financial intermediaries concerned. However, irrational and psychologically contagious phenomena such as mass trends (Shiller R.J., 2001), are short-lived, and the return occurs in renewed terms of perhaps enhanced risk aversion, although not for long, since the market, as is known, has a short memory.

Of course, all this phenomenology concerns the imperfections of real markets, and more so the more these markets are far from enjoying efficient conditions. But the literature offers a broader and more critical picture of the specific interests and action of the factors that can motivate preferences towards dividends or profit reinvestment, of which we will examine those that seem most significant for the purposes of this paper.

In particular, the most prominent is the tax factor, which varies from country to country and for the same country over time, and therefore constitutes the comparative benefit of the profit distribution or reinvestment variable in correlation, as described by the "Tax Preference Theory" (Brennan 1970, Elton and Gruber, 1970, Pettit, 1977, Litzenberger and Ramaswamy, 1979, Alli et al.1993, Lease et al. 2000, Al-Malkawi et al. 2010). Any decision other than one that conforms to the most beneficial fiscal strategy lowers the market price of shares, thus disavowing the thesis of the " zero influence " of dividend policy.

Differences of preference among shareholders regarding the dividend policy, with repercussions on a company's market value also derive from the composition of the company structure and its possible variation overtime (Baker and Wurgler 2004). An increase in the share of capital held by minority shareholders, resulting in a reduction in corporate control by the command group, would normally be followed by an increase in preferences for a high payout ratio, seconded by the control group to avoid a lowering of the company's market value and openness to hostile takeover attempts.

Another factor that certainly influences the choices regarding dividend policy is a company's need to counterbalance the exit of financial resources due to a high payout. If the company does not want to give up making new investments, it is forced to resort to external sources of financing (Bhattacharya, 1979; Rozeff, 1982; Miller and Rock, 1985), thus subjecting itself to the risks and costs of a finance of inferior quality to that generated internally and not subject to constraints. In a perfect financial market this fact should not affect the company's value, given the adjustments that occur in the various combinations of risks and financial returns and that neutralize the overall effect for the company, but this is not the case in a real market, where distortions can arise and propagate in inappropriate remodulations of risk and return. It is obvious, therefore, that a company's market value varies according to the judgment that the market makes on the immediate and remote effects of these financial ratios as a result of profit distribution. In such combinations and re-combinations of choices and related effects, the psychological factor is decisive. It is difficult for minority shareholders, mostly small and with poor cognitive abilities, to be fully aware of the complexity of the issues related to financing choices and to push their valuations beyond the mere immediate benefits. Clear evidence of the limitations of such valuations comes from research by Richard Thaler (Thaler, 1990) which clarifies one of the causes that can lead typically small shareholders to prefer a high payout ratio. One such cause is a "separate mental accounting". In their minds, these investors separate the "capital" element from the "income" element by considering them functional to two different objectives: the element-capital to that of an untouchable reserve until a certain event occurs, the income-element to that of covering a predetermined part of their current needs. Given such a permanent separation of the capital account from the income account, an exchange between dividend and share price increase is completely unthinkable for these shareholders. Another reason which could lead a certain segment of shareholders to prefer the dividend to the reinvestment of profit is the desire to avoid an increase in idiosyncratic risk. It is therefore not an "a priori" and general preference for the dividend, but rather one that arises rationally and gradually, since a prolonged policy of a company's profit reinvestment may lead to an excessive concentration of the shareholder's capital in that undertaking (S. Ecchia, 1984 and 1985). A small shareholder is more liable to feel such a risk because he cannot make a sufficient diversification of investments of his small capital beyond that, except through indirect diversification of alternative investment in an Investment Fund. But this alternative also presupposes the transfer of capital management from the hands of the individual investor to other subjects, a step not appreciated by investors who want to maintain total autonomy. Also, the controlling shareholder would take into account the idiosyncratic effect, according to the combined considerations of Arrow and Pratt that the growth of the investor's wealth leads to a lowering of his risk aversion, on the one hand, and to an increase in his aversion to concentrating capital in a single investment, on the other. However, it can be assumed that this latter effect is more than compensated by the benefits, both psychological and material, that derive from the position of command, as will be explored further.

A famous theory that can more generally justify the preference of minority shareholders for a high payout ratio is that of the "Agency Costs" developed in 1976 by Jensen and Meckling and subsequently refined following the corrective contributions of Rozeff (1982), Easterbrook (1984), again Jensen (1986), Agrawal and Jayaraman (1994), Holder et al.(1998), Lie (2000), Jabbouri and El Attar (2017), and whose pillar is the well-known condition of information asymmetry between shareholders and managers.

However, this relationship applies to companies with widespread, pulverized ownership, without controlling shareholders, while in companies with concentrated ownership the condition of asymmetry exists rather between minority shareholders, as principals, and controlling shareholders who essentially take on the role of agent since they are the ones who appoint the managers.

In both cases, information asymmetries exacerbate the natural difficulty for small shareholders to predict returns from earnings reinvestment and thus lead to an increase in their preference for immediate dividends in monetary form. However, they can rarely make their "voice"(Hirschman)effectively heard, despite the increasing spread of the "list vote" that sometimes allows them at least one exponent on the Board of Directors. It is therefore normal that many minority shareholders experience profit reinvestment as a form of "bullying" by the majority, opposable only by "exiting" from the company. The result is a decline in the market price of shares, to the point where the new risk-weighted rate of return aligns with that required by the market. Hence a downgrade of the share price and the market value of the company compared to that of so-called "value companies" (Grullon *et al.* 2002), i.e., companies that having reached a stage of maturity and stability and not having ambitions to venture into high-risk initiatives (for which the best source of financing would be profit reinvestment) are naturally geared towards a generous dividend policy. Obviously, this applies only to the classic condition that all other things remain equal. If over time, that reinvestment policy adopted by the first type of company proves to be very profitable by bringing, thanks to profit increase, dividends gradually greater in absolute value while keeping the payout ratio stable, the share price will move towards a progressive increase because it too will decrease, in the face of that evidence, not an aversion to profit reinvestment itself but to reinvesting profit in that enterprise. It is in this latter case that one can agree with the thesis, previously rejected on a general level, according to which investors look not so much at the way in which the return on their investment occurs, but at operating cash flows, which in this case are increased by profit reinvestment to the benefit of both subsequent dividends and the company's value.

The problem could therefore also be examined from another angle. Since different companies have different inclinations towards the level of payout ratio, depending on whether they are mature companies or companies that are still following a growth path (growth companies), with the need to make innovative investments, could minority shareholders also be differently inclined towards first or second type companies based on their age as a factor influencing risk perception? It seems quite likely that younger investors are psychologically more inclined to face the risk of investing in young, growing companies and that the opposite occurs for older investors, and therefore it follows that the younger ones are also more inclined or less hesitant than the older ones to accept profit reinvestment. The fact that advanced age investors are more reluctant to accept the uncertainty of returns from profit reinvestment is moreover well evidenced in the literature (H.H. Shefrin and R.H. Thaler). In any case, as long as a company remains at a stage where there is no need for particularly innovative investments, for which internal financing is more appropriate, a convergence of preferences of both minority and majority shareholders towards a high payout ratio is more likely to be realized.

But the danger of opportunistic behaviors by controlling shareholders is always around the corner,emerging implicitly even from the most classical theories on preferences relating to the sources of financing expressed by enterprises ("Pecking Order Theory", developed by Myers (1984), Myers and Majluf (1984) and subsequently deepened in empirical research such as Rajan R.G. and Zingales L. (1995), according to which such preferences are ordered on a hierarchical scale, at whose apex is self-financing, while last place is taken by financial resources also in the form of "full risk capital" , generated not internally but externally (capital increases). The intermediate posts are occupied by the various technical forms of indebtedness. The fact that the preferences for the two sources of capital exposed to full risk appear to be at opposite rather than contiguous poles from each other is understood, in the prevailing doctrinal interpretation (Brealey-Myers, 2020), as the intent to avoid damage to old shareholders and to benefit new ones, from a disadvantageous funding with new shares, due to a lower price than that aligned with the company's intrinsic value. This can be a valid interpretation in many cases and represent, among other things, one of the reasons why many companies leave the Stock Exchange, when the main reason for listing advantage - to make more funding and on cheaper terms thanks to increased liquidity of listed shares – is lost. In many other cases the interpretation can be very different. For example, one often recurring case is that in which the command group does not have the financial means to subscribe to the capital increase to the extent of avoiding a reduction of its control over the company, or, despite having the means, in which it does not want to expand the capital already injected as it does not believe it will obtain an adequate increase in the benefits it already obtains. Or, more simply, in which it wants to avoid the entry of other shareholders if these might interfere in the governance, such as to threaten the group's interests. The latter statement of reasons is fundamental for our analysis and will therefore be resumed and elaborated further.

To conclude our brief review of the theories that are particularly interesting for our discussion, we again cite the Residual Dividend Policy Theory, which has been confirmed by empirical investigation (Alli et al., 1993, Yoon and Starks, 1995, Lease et al., 2000, Baker and Smith, 2006, Baker and Powell, 2012), according to which the profit distribution policy is justified only when, and to the extent that, there are no opportunities for reinvestment with positive Net Present Value in the same company (Smith, 2009), a thesis that neglects the interest of minority shareholders who have better opportunities for external investment. This approach cannot be appreciated by a market largely made up of investors who follow the criterion of comparative convenience in their investment choices.

3. Reformulating the terms of the problem with the express inclusion of the psychological factor

In the brief references made here to the main elements that can influence dividend policy on enterprise value, we have seen that most of these are purely psychological. These elements operate at the individual level but may become common to a group in contrast with another. Since the strength of each group depends not only on the number and weight of the shares of the individual members but also on the degree of internal cohesion of each group, a strong syndicate agreement between some large shareholders can overturn the balance of power with much more numerous small shareholders even when prevailing in the overall availability of votes but not cohesive with each other. A similar agreement can find its basic motivation in the intent of a command group to give a stable guidance to the company or in its opportunistic objective of obtaining a rate of return from its capital proportionally higher than that justified by the number of shares. Instead, the purpose of each minority shareholder is limited to obtaining a return proportional to his number of shares and not reduced by the moral hazard behavior of the agent, while accepting the guidance of this as long as it allows him a better risk/return pair than that of alternative investments.

3.1. Weight of Information Asymmetries and short-term horizons.

The aforementioned purposes appear to be strongly conditioned by the respective cognitive abilities that influence both the feeling of risk and, consequently, the investment time horizon, since the temporal remoteness is combined with greater uncertainty, and the related preferences on the choices of how to employ the profit. It is taken for granted that the small shareholder, with low basic cognitive abilities accentuated by the information asymmetry, has a naturally short-term vision, which leads him to prefer *a priori* a certain, immediate dividend to random and mostly deferred returns deriving from profit reinvestment. Therefore, combined together, the Bird in Hand Theory and that of Information Asymmetries are valid. In contrast, large shareholders, when they are in control of the company and are closely tied to managers, have a broader, clearer view of how the company develops and so of the expected returns from reinvesting profits, and therefore can understand when these outweigh the benefit of an immediate dividend.

In an efficient market, with transparent, easy-to-access information, the differences in the positions of individual shareholders, whether small or large, are almost null, given the possibility of recovering in the sale price what is lost in dividends. But the further away the market is from the conditions of efficiency, the more the increase in the share price is uncertain and deferred over a likewise uncertain period. In an imperfect market, the hypothesis of a perfect interchangeability between lower dividends and capital gain makes no sense. In general, then, it would be irrational to ignore the fact that there is no "direct" correlation between renouncing a dividend and being benefitting from profit reinvestment. Therefore, if the expected company performance were unsatisfactory, despite a perhaps more than valid support from such investments, the market would incorporate into the price only the company's low overall performance, thus canceling the expectations of capital gains for shareholders. The preferences of small shareholders for short-term gains are often also shared by "open" investment funds because, although these investors certainly possess adequate cognitive skills and are subject to minor information asymmetries, they must consider the short-term preferences of their own small investors. Only funds with patient capital can in many cases share with the command group the benefits of a robust self-financing, thus accepting a *pro tempore* compression of the payout dividend. Nowadays, institutional investors hold a large part of the free float shares of large, listed companies, and when managing "patient" capital can even be involved in a company's governance even without necessarily entering into the shareholders' syndicate agreement. But even when not involved, they are still particularly cautious in externally reviewing the company management - an interest that, if very strong, may not please the controlling shareholders, as will be seen better further on.

Obviously, the growing weight of institutional investors translates into a parallel decrease of the weight, in the "floating" amount, of small investors who move autonomously. However, their negative reaction to profit reinvestment can still have negative effects for the company and the controlling shareholders themselves, and not only when their reaction coincides with that of those, among the institutional investors, who are also inclined to a high payout ratio. The result could be a significant drop in the share price that could favor possible hostile takeovers or in any case damage the company's image and make funding more expensive for financial needs not covered by self-financing. However, such a situation occurs when massive and unshared self-financing reverses the trend in the company's dividend policy in force till then. For this reason, companies prefer to follow a pay-out policy that tends to be constant. Such a trend, regardless of whether the payout is low or high, will incur no repercussions on the market price caused by the year-by-year reiteration of that measure of the payout. If the payout stabilizes itself at a low level, due to a permanent policy of profit reinvestment, the investor knows that he will sell "at a discount" what he has previously purchased "at a discount". In any case *coeteris paribus*, and on the basis of the considerations carried out so far, the price should change again only with the disappearance of the "unbroken dividend record" and move in the same direction as the change (or the expected change, since the market tends to anticipate such variations) in the payout ratio, and with greater intensity the greater is the small shareholder's psychological condition of risk aversion.

As seen above, it is reasonable to expect that the conditions of risk aversion that induce small shareholders (who largely make up the free floating) to prefer a dividend to profit reinvestment, should greatly decrease in the face of corporate policies aimed at maintaining the payout ratio on a level of stability, no matter if high or low. However, there is no doubt that many small investors do not quibble too much about the problem and rather orient themselves directly towards companies that are more sensitive to their reaction in the face of choices of strong profit reinvestment. There is also no doubt that this prejudicial approach is wrong when the agent's proposal to reinvest the profit, which becomes an imposition in highly concentrated companies, is made according to the general interest of the company. But it is also plausible that the fear of many small shareholders that the company's insensitivity to their dividend expectations masks an agent's personal interest towards a profit reinvestment that does not coincide with those of the company and the entirety of shareholders. This leads us to examine the topic in greater depth, even if in this regard the problem arises differently depending on the composition of the corporate structure. What we will want to examine here is not whether the structure of a public company or that of the concentrated ownership company affects the choice of how profits are employed, because this, as we will see, is already statistically ascertained. We will rather examine where the choice of massive and systematic profit reinvestment is functional to protecting widespread occult behaviors of moral hazard on the part of the agent and consequently damaging conditions are created for the firm and/or for the shareholders or for only a part of the shareholders, so altering the principle of equality.

3.2. Does a company's self-financing benefit controlling shareholders to the detriment of the minority? And what is the influence of the shareholding structure?

Recent research on business choices (Basil Al-Najjar and Erhan Kilincarslan, 2018) shows that when corporate governance is in the hands of a controlling group, the payout ratio tends to be, *coeteris paribus*, lower than that of public companies, and such a difference is smaller when minority ownership includes some large investors. From this second observation, as has already emerged in our previous considerations, evidence arises of a position of notable arrogance of the command groups, which are strong with the mass of small shareholders dispersed and poorly organized but become more cautious when some strong subject emerges among them, also able to create coalitions, if necessary, to counter the overwhelming power of the command group. However, the fact remains that the less the command group must fear from the reactions of minorities, the more inclined it is to impose a policy of the company's self-financing. However, it is difficult to think that the above empirical evidence is sufficient to indicate that the company's self-financing benefits the control shareholders disproportionately to their capital, thus distorting the principle of equal share rights. In fact, we must consider that:

- the payout ratio, whether low or high, is always the same for each share, so that no alteration can be attributed to a low measure of the ratio itself; both current and future dividends are proportional to the number of shares held by each shareholder, regardless of whether it is part of the minority or the majority.
- the same can also be said for the incorporation into the share price of the effects of the profit reinvestment, since this price applies to all shareholders who wish to trade at that time, without any distinction between them.

Based on those considerations, it can therefore be inferred that in itself profit reinvestment does not entail any alteration of the rights of share equality for the agent's benefit. Therefore, it cannot be said that minority shareholders are harmed, and majority shareholders have an advantage. Nor can it be said that the command group always and necessarily pursues only its own interests when it imposes profit reinvestment. When this group decides to sacrifice dividends, it may do so simply because it believes, on the basis of a certainly greater knowledge of the company than what the minority shareholders possess, that profit reinvestment will produce more than compensatory returns for the company and for *all* shareholders.

Obviously, in less efficient markets, the effect of that profit reinvestment on the share price is not only random but deferred over time, so at first glance it would seem that a return on the profit reinvestment mostly benefits stable shareholders, and not the overall mass. But we have seen that this problem does not exist when the company's dividend policy is stabilized around a certain level of payout ratio, even if very low, since at any time the investor can enter by buying the shares "a ta discount" and resell them at any time, *coeteris paribus*, always at the same discount". So, at least as long as the company pursues a dividend stabilization policy there is no advantage or disadvantage, for the investor, connected to the moment he enters or exits the company, and to the length of time he possesses the shares. Of course, things change in the absence of such a policy, but anyway profit reinvestment, while generally opposed by minority shareholders, does not "in itself" damage the minority and, correspondingly benefit the majority, but rather is a legitimate manifestation of the majority's decision-making power. The benefit or damage will depend annually on the results of the investments thus financed and will be, for *all shareholders, proportional to the number of shares owned by each*. Therefore, the dividend policy does not create in itself any discrimination between shareholders, depending on their size, on their membership in the minority or majority, or on the duration of ownership of the shares.

However, the fact that the dividend policy is neutral on that principle of equality does eliminate the possibility that the command group may somehow opportunistically instrumentalize and enslave it, and that the realization of those ends results in the altering share rights equality.

Are there elements that can suggest the existence of a "systematic strategy" of pursuit of such ends that are somehow linked to a policy of low payout ratios, not motivated by the intent to strengthen the company? Some indicators of such a strategy emerge, first from the differences that exist between public companies and those with highly concentrated ownership regarding dividend policy and the facts that ensue from it.

As appears from empirical research:

1. The dividend policy assumes different characteristics, not by chance but depending on the degree of concentration of corporate ownership with a clear prevalence of profit reinvestment in companies with concentrated ownership, with a strong command group and without strong minority shareholders.
2. It is in concentratedly owned companies that the control premium is highest at the time of transfer of the command package.

This convergence of the conditions of greater self-financing and greater control premium in highly concentrated ownership companies compared to widespread ownership companies deserves to be examined in greater depth.

4. Physiological and pathological reasons underlying the convergence of self-financing, concentration of ownership and control premium

What reasons can justify this tendential convergence of self-financing, concentration of ownership and control premium, if we consider that the profit reinvestment policy does not in itself bring differential advantages for the command group?

4.1. Physiological reasons

A first answer is that profit reinvestment can take place to a greater extent in concentrated companies because corporate governance is in the hands of a command group that, as already mentioned, thanks to a greater cognitive capacity, is able to recognize investments that are most useful for the competitiveness of the enterprise, and for which, if they are innovative and by their nature riskier and with deferred profitability, the most appropriate funding source is provided by internal training resources, since they are the freest from constraints. Consequently, the strengthening of the company through self-financing, in this case, benefits "all" shareholders, and, proportionally, the number of shares owned by each.

This does not mean that it is always advantageous for all shareholders, and it certainly isn't for minority shareholders who have better investment opportunities elsewhere. But this is a consequence of the corporate contract, which, however, always grants dissenting shareholders the chance to sell their shares and which in any case does not alter the principle of equal share rights.

In the hypothesized situation, the only advantage for the major shareholders to form a command group would therefore be to guarantee, for the benefit of themselves and others, the best investment returns through their direct governance of the company, since those shareholders are more competent and able to express or directly control the managers. But it is difficult to understand the reason, in such a case, for a high control premium on the out-of-market sale of the command package, since the competences of the command group would not be transferable with the shares. It is therefore likely that the control premium, especially when very substantial, and limited to companies with concentrated ownership, is motivated by other, perhaps not properly physiological, reasons.

4.2. Pathological reasons: The instrumental role of self-financing as a "shield" to favor the extraction of private benefits. The fall of the equality of the actual return rate.

The difference between the control premium, in the case of concentrated ownership companies, as compared to public companies (Bebchuk, 1994), which sometimes reaches 20% of the market price in official news but which probably often exceeds it, if we consider that the official premium may be supplemented through additional compensation in unofficial form, leaves room for hypotheses about other advantages that are exclusive to the command group and not shared with other shareholders.

Reference is clearly made, first, to those differential advantages that go by the name of "private benefits", which can be of various kinds and which in many cases, and especially when they have a pecuniary character, represent, to put it mildly, a classic moral *hazard*, if not out-and-out theft. In this regard, some observations can be made:

1. Such morally hazardous behavior may be present in both public companies and those with concentrated ownership, but, in general, to a different extent. In fact, in a public company the extraction of private benefits is made by an agent (a manager) who knows that he can be easily replaced, and therefore such extraction is generally much lower than when the agent is a strong and stable command group, although in both cases the extraction takes place "subterraneously". An indirect indicator of this difference in the amount of private benefits extraction is given precisely by the very different amount of the control premium, so much so that in the case of "pure" public companies we cannot talk of "control premium" but only of a "voting premium", since in the strict sense control does not exist, and the raider must collect shares on the market.
2. The extraction of private benefits means exiting the enterprise, and in favor of the agent, of a part of the wealth produced by the enterprise itself. The implications for the company and its shareholders are obvious and differentiated according to whether we are dealing with public companies or concentrated holding companies. In the first case the damage affects "all" shareholders, in proportion to the number of shares owned, and if the agent does not own shares, he does not suffer any damage against the private benefit (however very limited, as mentioned), he has obtained. Also in concentrated holding companies, the damage caused by wealth outflow from the enterprise always spreads uniformly over all shareholders, while the private benefits, equal to that the wealth outflow, are restricted exclusively to the control group. Since the total number of company shares is greater than the number of shares that the controlling shareholders own, the advantage for these shareholders is mathematically greater than the damage they incur, and the difference falls negatively on the minority shareholders. In other words, the net advantage for the controlling shareholders occurs only because the minority shareholders bear the brunt of the costs. In practice, if the actual wealth produced by the firm in a year is 100 but is reduced to 30 by the extraction of private benefits, and the total share capital is 1000, of which half is in the hands of minority shareholders and the other half in those of the command group, the actual return for the minority shareholders will be 7 %, while for the command group 7% officially plus 6% in occulted form.

Obviously, this additional and arbitrary "remuneration" that the command group assigns to itself augments the value to the command share package and therefore qualifies as a control premium to the extent that the incoming group thinks it can also benefit from such extraction of private benefits. It is then a question of seeing whether and how the practice of extracting private benefits can be linked to a strategy of low payout ratios. If the source of internal financing is systematically preferred to external ones, not only, as is rational, to cover the need for innovative, high-risk investments, but also to cover normal financial needs, and even when the capital increases or the leverage would be more convenient, the suspicion that the financial strategy is functional to the interest of the command group and not to the enterprise seems perfectly justified.

The command group's rejection of the capital increases may be motivated not only by its possible difficulty in underwriting a part of new shares sufficiently to avoid a dilution of its company's control, but also by its intent to avoid opening the door to possible investors who, in force of their own specific knowhow and amount of capital can interfere in the company's governance and control. The rejection of significant financial leverage even if advantageous can, in turn, be motivated by the agent's intent to avoid stringent creditor controls. In fact, based on the amount of its credit, the financial intermediary could closely monitor how the company is governed as a factor influencing his loan repayment, so disturbing the agent's extraction of private benefits.

Ultimately, the more that external forms of financing open the door to external and penetrating control, the less useful they are to a command group geared towards maximizing its private benefits. In such situations, profit reinvestment is the preferred resource, and although a systematic policy of low payout ratios is in itself neutral to the company's value and the equal rights of its shares, it can nevertheless become a means in an agent's hands for advancing his personal interests and specifically for preventing or mitigating any external controls that could reduce the extraction of private benefits. Therefore, the *opportunistic* use of this policy causes the alteration of equal share rights, and more precisely an undue enrichment of the agent/group of command in face of a corresponding reduction of the wealth to which minority shareholders were entitled. In this perspective, the reversal, as it is taking shape in this century, of the path towards a growing dissociation between ownership and control, which in the past century characterized the spread of public companies, and which was part of a strategy of company expansion through a greater and less expensive collection of capital, does not nothing to improve market efficiency.

5. Further consequences of the agent's morally hazard behaviors: chaos of values for the company

Obviously, if the ordinary suspicion of the extraction of private benefits already penalizes the price of the share, the penalty will be even stronger when that suspicion is endorsed by the evidence of a systematic willingness of the command group to keep the payout ratio very low. However, since this possible link between the policy of systematic reinvestment of profit and private benefits does not seem to be described even in the literature, it is unlikely to be grasped by the market.

In short, often the market can punish profit reinvestment in itself even when this has physiological purposes of strengthening the company, and therefore the penalization is irrational, and then it further penalizes the price to take into account the intuitiveness of the extraction of private benefits but probably without taking into account the contribution that can come from the possible opportunistic use of a systematic profit reinvestment to the concealment of this extraction. So, what could happen is that, paradoxically, the market punishes the profit reinvestment of even when this is appropriate for the sustainable development of the company and does not punish it for this contribution to the practice of private benefits. They are paradoxes attributable to a lack of cognitive ability, though in a context of information asymmetries that are clearly wanted by the agent. It is obvious that in such a situation the accumulation of such uncertainties and biases prevents the company from being given a single, certain value.

We have a range of values:

- the balance sheet value, which, not being able to incorporate a phenomenon such as the extraction of private benefits, which by its nature escapes accounting, considers only values already reduced by the exit of wealth from the company.
- the value for minority shareholders (market value),
- the value for the command group during the possession of the control package in which the group extracts private benefits, i.e., the market value increased by the potential control premium that the command group can obtain by a possible "off-market" sale of its share package
- the "intrinsic" value based on the potential generation of wealth by the company, i.e. Net Present Value of future cash flows without the extraction of private benefits.

Clearly, this last value is unknown. It is doubtful that a good proxy can be given by the sum of the market value and the control premium, at the time the control pack is sold. Probably, a measure of value closer to that of intrinsic value can be deduced from the premium paid in delisting and going to private operations, in which the command group proceeds to acquire the minority shares in view of removing the company from the stock exchange list, for various combined reasons, including in particular an underpricing of the security (compared to the value deemed appropriate by the agent), which precludes what is the greatest advantage of listing, i.e., to draw capital more easily on the market. Obviously, the control group is not willing to acquire the shares of minority shareholders at a price higher than that in line with the intrinsic value of the company.

From research conducted on American and European companies, it emerges that the premium paid stands on average at around 40% of the market price, (Del Giudice A., 2012, Table 1, p. 24). Therefore a much higher premium than that paid on the occasion of the sale of the control package, which supports the idea that, while in the case of going private it is difficult to hide the values in official negotiations concerning a large number of small shareholders, it is much more likely that this will happen in direct contact between the transferring command group and the purchasing group, and the ways and instruments of concealing the real and greater magnitude of the prize are much more numerous.

Even by considering the price paid for a delisting, one could never arrive at the value that should be attributed to the enterprise on the basis of its real ability to generate wealth. If the management process takes place with the full company endowment, without systematic reductions during management, the overall value generated would be different from any value reconstructed in the previous manners.

Ultimately, the agent's moral hazard behaviors, and specifically his opportunistic use of a low payout ratio strategy (or that of the command group), alter the equality of rights with other shareholders, so as to arrive often at a form of actual theft to the detriment of the minority shareholders. However, it must be said that market discipline, although imprecise and late, is valid, and perhaps more than legal discipline, to set limits that reduce the moral hazard behaviors examined here, without ever canceling them. The main limitation of a self-financing policy aimed at reducing the controls that would result from a massive presence of external finance is naturally included in the broader limit to the same activity of extracting private benefits for which it acts as a protective shield. With too systematic a policy of reinvesting profits, largely exceeding what is needed for innovative high-risk investments, and in particular R&D, with very little or no contribution from other financing, the company's growth decelerates and thus generates less wealth. Hence, what the command group gains in relative terms it loses in absolute terms, because even theft, in order to be profitable, requires that the object of the theft should be of substantial value.

Conclusions

The logic that the value of the company does not depend on the composition of the sources of financing, certainly valid in the abstract, is also valid in a real context, but only as a reference guide that urges clarification of why and how certain context factors, real or psychological, impede the full attainment of that logic and how such factors can be reduced as much as possible. Among these factors emerge the behavior of shareholders, which is affected by their varying availability of capital and cognitive ability, in combination with risk aversion. In particular, the lack of cognitive ability favors the agent's possible covert extraction of private benefits, even in pecuniary terms, to the detriment of the company, but with differentiated effects for shareholders, depending on whether the company is extremely fractional or highly concentrated property. In the first instance all the shareholders are damaged, in proportion to the number of shares owned by each, and in the second instance, where the agent identifies himself in fact with the command group, only the minority shareholders are damaged, and to an extent corresponding to the advantages for the command group, with reversal of the principle of equal share rights. Obviously, in this second instance there is also the subversion of the single value of the enterprise, since this comes to assume a plurality of values, depending on the observer's standpoint. The extraction of private benefits is made secretly upstream of the period's profit determination but can be concealed even further by choices of systematic profit reinvestment that reduce the recourse to external financiers, and therefore also their controls. So, such a choice, when implemented as a strategy aimed at concealing the expropriation of wealth, while being neutral in itself, becomes an instrument in the hands of the agent for morally hazard behaviors, generally when the agent is a strong control group. It does not seem that in the literature there is evidence of this specific element of alteration of dividend policy neutrality.

It is thus likewise demonstrated that, in the real context of corporate life, the dividend policy can be manipulated in such a way as to alter the principle of equal share rights, influence the value of the enterprise, give it different configurations depending on the perspective and interests of the majority or minority shareholders, and depending on the shareholding structure, whether a public company or a concentrated ownership company. All this, combined with psychological characteristics of the investor that in part are dependent on his natural aversion to risk, and in part on the external elements that influence the risk and make it quantitatively determinable on a probabilistic basis or qualify it as a state of uncertainty in close relation to the basic cognitive capacity of the investor and his specific information about the company. Hence, in this context the agent's maneuverability of the level of payout ratio in an opportunistic function of reducing the controls on his extraction of private benefits, especially when the agent is a command group, constitutes, both a further piece of the "dividend puzzle", so far not highlighted in the literature,

And a common thread for explaining the behavioral logic of moral hazard of the command groups as agent in view of personal profit objectives contrary to the interest of the enterprise and of the other shareholders.

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