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TRANSFER OF PROFIT TO SHAREHOLDERS AT WARSAW STOCK EXCHANGE IN THE PERIOD 2009–2013

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Abstract

The Author of the article presents the results of research devoted to the forms of transfer of profit to shareholders of the companies quoted at Warsaw Stock Exchange in the period 2009–2013. The Author concluded that there are features in the group of dividend companies and another group – that of dividend companies which additionally execute share redemption and cancellation – which make them different.

Keywords: dividend, share redemption and cancellation, dividend policy, Spearman's rho

JEL classification: G30, G32, G35

Introduction

The article focuses on the payout policy of companies, consisting of the dividend policy, and share redemption and cancellation. Corporations quoted at capital market implement the payout policy by paying out dividends (they are referred to as dividend companies), or by share redemption and cancellation. Therefore, for the purposes of the study, the companies which pay out the dividend were selected and divided into those which pay out only dividends, and those which apart from the dividend also pay out execute share redemption and cancellation.

The objective of the article was to investigate whether it is possible to point out among the issuers paying out dividends, and executing share redemption and cancellation at the same time, any repetitive financial properties in comparison to the companies which pay out only the dividend.

An additional objective was to indicate what are the relations between the dividend payout and share redemption and cancellation, whether the issuers use both elements of the payout policy at the same time, and whether there is any domination of the dividend payout over share redemption and cancellation among companies.

The topic of the policy of dividend and share redemption and cancellation is a subject of wide considerations both in literature (e.g. DeAngelo, DeAngelo, Skinner, 2000; Damodaran, 2000; Jagannathan, 2000; Stephens, Weisbach, 1998; Fama, French, 2001; Grullon, Ikenberry, 2000; Brav, Graham, Harvey, Michaely, 2005; Sierpińska, 1999; Horbaczewska, 2012; Tuzimek, 2013; Kowerski, 2011; Szablewski, 2003; Słoński, 2012), and in the economic practice (attempts to apply the dividend policy by the companies quoted at capital markets). Most enterprises which pay out dividends do not execute share redemption and cancellation at the same time, and vice versa – the enterprises which decide to redeem and cancel shares do not necessarily pay out dividends. There is a rather small group of the issuers who use both these methods at the same time.

The problems tackled in the subject literature pertain to a broad scope of the payout policy – from its impact on the share prices, through determinants, to the impact on the economic and financial image of the issuer who uses it.

Solving the problem posed during this research will allow to specify whether the companies quoted at Warsaw Stock Exchange divide the financial result through the dividend payout, and share redemption and cancellation, and whether there are any features shared by these issuers.

During the subsequent stage of the study, the companies which additionally executed share redemption and cancellation in the analyzed period were selected. This is a group of 15 dividend companies which execute share redemption and cancellation.

The study covered an analysis of empirical data, predominantly in the scope of comparing the paid-out dividends with the share redemption and cancellation. Also, within the scheme of the study an analysis of relationships was carried out, basing most of all on the examination of correlations (using Pearson's linear correlation coefficient and Spearman's rank correlation coefficient) of the changes of the financial results of the issuers with the changes of the paid-out dividends and/or share redemption and cancellation. Applying Spearman's rho in the study allows to state that between the two variables, an interdependence occurs in the situation where the variables do not satisfy the assumptions of parametric tests, such as distribution normality, or the quantitative nature of the tested variables. The additional application of Pearson's linear correlation coefficient in the study is merely to compare the results with Spearman's rho, and does not constitute any foundation for drawing conclusions or verifying the assumed hypotheses.

The effect of the works performed within the scheme of the study was the verification of the hypotheses assumed.

I. General study

1. Comparison for the period 2009–2013 of the annual values of the cash transferred to shareholders in the form of dividends or allocated to share redemption and cancellation.
2. Analysis of the share of the paid-out dividends and/or the funds allocated to share redemption and cancellation in the company's profit.
3. Comparison of the number of dividend companies and the dividend companies which additionally execute share redemption and cancellation for the period 2009–2013, and determining:
 - a) whether there were any companies (how many) which redeemed and cancelled shares and did not pay out the dividend and vice versa;
 - b) whether there is any relation between the change of the number of the companies which pay out the dividend and/or which execute share redemption and cancellation and appreciation/depreciation of WIG quotations;
 - c) the degree of concentration of dividend companies and the dividend companies which redeem shares.

II. Detailed study

1. Calculation of Pearson's linear correlation coefficient and Spearman's rank correlation coefficient separately for dividend companies and the dividend companies which redeem shares towards:
 - a) the degree of interdependence between the dividend payout and net profit, gross profit on sales, profit on sales, operating profit, total cash flow, balance sum, investment cash flow, level of fixed assets, cash, equity capital, and debt level of the issuer (total external capital and short-term liabilities);
 - b) the degree of interdependence between share redemption and cancellation, and net profit, gross profit on sales, profit on sales, operating profit, total cash flow, balance sum, investment cash flow, level of fixed assets, cash, equity capital, and debt level of the issuer (total external capital and short-term liabilities).
2. Calculation and analysis of market parameters (P/E and P/BV) of dividend companies and the dividend companies which additionally execute share redemption and cancellation for the last session in the year in which the dividend was paid out and/or shares were redeemed and cancelled.
3. Indication of dependence of the dividend payout and/or share redemption and cancellation on the affiliation of the company to WIG20, mWIG40, and sWIG80 indexes.
4. Indication of dependence of the dividend payout, and/or share redemption and cancellation on ROE of companies.
5. Analysis of variability of the results of dividend companies and the dividend companies which redeem and cancel shares, and indication of the common properties of the companies from both groups, if any.

In order to achieve the objectives of the article, it was necessary to verify research hypotheses referring to an individual area of the payout policy. These hypotheses assume the following form:

- H1:** The companies quoted at Warsaw Stock Exchange pay out the dividend more often than they redeem and cancel shares.
- H2:** The companies quoted at Warsaw Stock Exchange allocated larger amounts to the dividend payout than to share redemption and cancellation.
- H3:** The increase of a company's profits does not influence the increase of the paid-out dividend, and the increase of the amounts allocated to share redemption and cancellation.

- H4:** The changes of the elements of the financial results, i.e. net profit, gross profit on sales, profit on sales, operating profit, total cash flow, investment cash flow, balance sheet sum, level of fixed assets, cash, equity capital, and the level of debt of the issuer (total external capital and short-term liabilities) do not have a significant impact on the change of the amount of money allocated to the dividend payout.
- H5:** The changes of the elements of the financial results, i.e. net profit, gross profit on sales, profit on sales, operating profit, total cash flow, investment cash flow, balance sheet sum, level of fixed assets, cash, equity capital, and the level of debt of the issuer (total external capital and short-term liabilities) do not have a significant impact on the change of the amount of money allocated to the share redemption and cancellation.
- H6:** The dividend companies which redeem shares exhibit a higher degree of results variability than dividend companies.
- H7:** The managers of the companies which exhibit lower P/E and P/BV parameters redeem and cancel shares more often than they pay out the dividend.
- H8:** Dividend companies exhibit a lower ROE parameter than the dividend companies which execute share redemption.

1. Literature Review

The company's share redemption, also referred to in the subject literature as share repurchase, is often described as an alternative or completion of the paid-out dividends, as both forms of the cash transfer to shareholders form the payout policy. However, it should be pointed out at this stage that share redemption and cancellation can be recognized as an element of the payout policy only if, at the further stages of the process, the redeemed shares are cancelled, and not distributed as a form of settlement with business partners, sold, or used in managerial options or other types of settlements with the company's employees.

Relevant legal regulations indicate that the amount intended to be divided among shareholders must not exceed the profit for the last accounting year, increased by the undivided profits from the previous years and by the amounts transferred from the supplementary and reserve capitals established from the profit, which can be allocated to the dividend payout. This amount needs to be decreased by the uncovered losses, the company's own shares, and by amounts which in compliance with the act or statute should be allocated from the profit for the last accounting year to the supplementary or reserve capitals (Official Journal 2000, No. 94, item 1037, art. 348 section 1).

In compliance with the provisions of the Commercial Companies Code, the issuer has an option to redeem and cancel shares maximally up to 20% of the nominal value of the shares in the share capital (Official Journal 2000, No. 94, item 1037, art. 359–363). This document also indicates when the company can – besides cancellation – redeem its shares. It is possible to identify the permission to redeem shares:

- in order to prevent a damage that threatens the company directly,
- in a situation where the shares are to be offered for purchase to the company's employees or persons who were employed in the company or its affiliate for the period of at least three years,
- by way of a universal succession (Official Journal 2000, No. 94, item 1037, art. 362 section 1).

Five main methods of share redemption can be identified, i.e. purchase offer with a fixed price, share redemption on an open market (the first two methods of share redemption and cancellation shall be subject to the analyses and study as they are most often applied by stock exchange issuers), the Dutch auction, distribution of transferable rights to the sales of shares, and the target share purchase (see more: Szablewski et al., 2006, p. 53; Cwynar et al., 2007, p. 197; Brealey et al., 1999, p. 577; Brigham et al., 2005, pp. 222–223; Horbaczewska, 2012, p. 70; Tuzimek, 2013, p. 193).

The motives for executing share redemption and cancellation can be as follows:

1. Influencing the change of earnings per share – increase of EPS in a situation where a company does not have an investment programme, and the future results will be at least at a similar level. The redemption and cancellation of shares will increase the earnings per share, and in the situation with the lack of increase of the financial risk, it will translate into the increase of the market value of the company.
2. Notifying investors that the listings of the company's shares are undervalued compared to their internal value. The application of the share redemption by the management board will decrease these disproportions (nevertheless, the largest benefit deriving from the share redemption in the sense of the incurred outlays towards the price will be on the part of the shareholders of the companies for which the P/BV parameter is lower than 1, provided that the low values of this factor do not result from a dreadful standing of the company, and thus from the depreciation of the prices of its shares).
3. Defence against a hostile takeover in a situation where the real value of the company is high, and the purchase costs are low.
4. Lack of economically justified investments of the enterprise.

5. Change of the capital structure towards increasing the share of external capital in the sources of financing of the company's operations.
6. Substitute of the cash dividend, justifiable in a situation where the taxation of capital gains is at a lower level than that of the obtained dividend (own elaboration after: Szablewski et al., 2006, pp. 54–55; Tuzimek, 2013, p. 194; Grullon et al., 2000; Billett et al., 2007).

Benefits of share redemption are believed to be a positive reception of such operations of the issuer by investors of the capital market, free selection of share owners for share redemption or detaining them further, liquidation in a certain period of surplus of shares, if any, on the market, increase of the company's debt rate, and freedom in the choice of time and volume of share redemption. A significant benefit is also the option to apply share redemption as an additional form of the result division if the company applies the target dividend payout ratio. Then the dividend payout is used as the basis for the payout policy, and surpluses, if any, of free cash are allocated to share redemption and cancellation. From the point of view of the issuer, it is an attractive solution to the extent that it does not cause a sudden increase of the paid-out dividend compared to the previous payouts, and, at the same time, it allows to distribute any additional earnings.

The weaknesses of such operations, on the other hand, comprise shareholders' preferences in the subject of the dividend payout, and thus a negative reception of the management board's operations, incomplete knowledge on the economic and financial standing of the companies which sell shares, and, in doing so, agree to perhaps a low repurchase price, and purchasing shares for a too high price, which at the same time means incurring costs by the other shareholders (own elaboration after: Brigham et al., 2000, pp. 618–619; Sierpińska, 1999, pp. 65–66; Brigham et al., 2005, pp. 226–227; Fama et al., 2001).

Both the dividend payout and share redemption and cancellation, change the financial image of an enterprise. Cash distribution causes most of all changes of the company's assets and liabilities. It leads to decreasing the cash balance in the assets and the value of the equity capital in the liabilities. This stands for the increase of the balance sheet total of the company. Cancellation of the company's own shares can also influence the change of the value of the enterprise by changing the weighted mean cost of the capital.

As a result of the research conducted by Fama and French (Fama et al., 2001), the attention was paid to the changes occurring in the payout policy of companies. Most of all, the research conducted for the period 1926–1998 (with special focus on the period 1978–1998) demonstrated

a significant increase of the amounts allocated to the redemption of shares, as compared to the amounts allocated to the dividend payouts.

Also, the research conducted by Damodaran (Każmierska-Józwiak, 2013) for the period 1991–2011 on the American market, implies that since 1999 the companies belonging to the index S&P 500 annually allocated higher values for the redemption of shares than on the dividend payouts. The most money – over USD 500m – was allocated by issuers to the redemption of shares in 2007, when there was a slump of listings on the capital market, lasting to the first half of 2009.

The research carried out by Pieloch (Pieloch 2011), pertaining to the comparison of the amounts allocated by companies to the dividend payout and to the share redemption for the period 2001–2009, confirms that entities still allocate bigger amounts to the dividend payouts than to the other form of transfer of earnings to shareholders. As an exception, the period of 2007–2008 was indicated, when companies transferred larger amounts for the purpose of share redemption. This results from the situation on the capital market – in this period companies' listings at Warsaw Stock Exchange were at the stage of a slump, and the issuers' shares in selected cases were undervalued considerably towards their internal value.

Similar conclusions can be drawn from the research conducted on the Polish stock market for the period 2003–2010 by Horbaczewska (Horbaczewska, 2012, p. 141). It implies that, in the analyzed period, Polish stock exchange issuers were more willing to pay out dividends than to redeem and cancel shares. In the period of drops on the capital market, on the other hand, issuers redeemed and cancelled shares more often. Similar conclusions were reached by Jagannathan, Stephens, and Weisbach (Jagannathan et al., 2000) on the basis of their research focusing on the American market.

On the basis of the research conducted on the Polish market, on the other hand, by . Słoński (Słoński, 2012) for the period 2005–2010, the majority of companies indicated their shares undervaluation to be the motive for executing share redemption in order to cancel or resell their shares (62.5% and 14.29%, respectively). Further on, they mentioned remunerating employees with shares as the goal for the redemption of shares (8.04%).

In the case of share redemption, it is more often executed by companies which hold considerable, but non-repetitive, cash surpluses, which at the same time cannot utilize them in an effective way (Stephen et al. 1998), or which exhibit considerable cash flow on non-core business (Joganathan et al. 2000). In the situation of the dividend payouts, a company must hold a sufficient amount of cash before the dividend payout date. In case of share redemption, an entity is more flexible in terms of utilizing cash, because share redemption on the open market

can be executed in a continuous way and distributed in time, which stands for no obligation to hold cash in the moment of making the decision on share redemption. It also results in an additional benefit – it is possible to redeem shares in the most convenient moment of the listings, i.e. in the period of share price depreciation, which on the one hand allows to redeem a bigger number of shares, and, on the other hand, is a stabilizer of the downward trend.

Share redemption and cancellation is often used by the entities which do not plan to implement profitable investment projects, or where the generated financial result exceeds investment-related capital demands. Similarity with the residual dividend policy is visible here. The subject literature (Szablewski ed., 2003, p. 25; Hjelmstad et al., 2006) indicates that the redemption of shares is executed if the company holds a considerable net cash flow surplus (FCF), and there are no projects that would satisfy the condition $ROIC > WACC$.

Share redemption in order to cancel the shares will also translate into changes of ROE. The companies which exhibit low values of this parameter, after share redemption and cancellation will demonstrate higher profitability of the equity capital. Furthermore, a low value of ROE can be a sign of a too high share of equity capital in the financing structure of the entity. Thus share redemption and cancellation can cause changes in the financing structure towards reaching an optimal financing structure.

The research carried out by Tuzimek (Tuzimek, 2013, pp. 312, 315) demonstrates that the largest interest of investors was on the part of those companies which announced their plans to redeem shares, and which exhibited a lower ROE factor compared to the sector. This study also implies a confirmation of the capital structure theory for the companies with the lowest level of debt, assuming the occurrence of the optimal level of debt – companies, when planning to redeem shares, inform that in a long run the share of the debt in the financing structure will increase as a result of the redemption of shares, and drop in the value of the company's own capitals. Therefore, an optimal payout policy signifies the company's operations in terms of the distribution of the generated result which maximize its value.

Cash transfer to shareholders in the form of share redemption and cancellation influences the image of market ratios P/E and P/BV. Cancellation of redeemed shares causes a rise of the EPS parameter, which has been indicated as one of the motives of such operations of a company on the capital market. Thus, the increase of the earnings per share will influence the drop of the P/E parameter, assuming no change of the share price on the information on share redemption. From the point of view of this parameter, the company becomes more attractive from other entities in the sector. Share redemption on the market and the cancellation of shares, on the other hand, will have a negative impact on P/BV. Share redemption and cancellation, causing

the reduction of the equity capital, will translate into the increase of this ratio. Even assuming no reaction of the company's share price to the information on its shares' redemption, it will receive a worse evaluation from the point of view of the P/BV ratio, and, therefore, it will be less attractive in comparison to other entities in the sector. Therefore, especially in the event of share redemption and cancellation, it is essential what the price is according to which the redemption process is executed. The Author of this article has already pointed out that, from the point of view of the share price, according to which the redemption is executed, the largest benefits will be on the part of the shareholders of the companies for which, in the period of share redemption, P/BV is lower than one. Then, after share redemption, even the described changes of this ratio (its appreciation) will not spoil the image of the company in the eyes of the investors paying attention to market ratios, as well as in comparison to other entities in the sector.

There is a difference in the behaviour of the share price between the dividend payout, and share redemption and cancellation. The dividend payout results in the cutting off the right to the dividend from the share price as of the date of purchasing the rights by way of possessing the shares, valid in a specific country (at Warsaw Stock Exchange, the investor purchases the rights by way of the shares possession within the time of $n + 2$, where n stands for the date of purchasing the shares (previously, the settlement was consistent with the principle $n + 3$). In order to acquire the right to the dividend, one needs to purchase the shares of the company two working days before the date of granting these rights, at the latest). Therefore, as of the moment of cutting off the right to the dividend, the share price is corrected from the next session by the gross dividend received. In the event of share redemption and cancellation, not only does such a procedure not occur, but the share price can increase as a result of the demand generated by the purchasing company (the article disregards the issues connected with the reaction of the share price to the announcement, or application of the payout policy, and indicating which of its determinants exerts a stronger impact in the share price fluctuations). Similar conclusions were reached by Goddard and Cornell (Goddard, 2005; Cornell, 2005).

Comparing share redemption with the dividend payout, it is possible to observe an advantage of the latter, in particular in a situation where share redemption is executed according to inflated market prices. Additionally, the dividend policy can be characterized by the payout stability, which translates into a positive reception of such actions of the management board by investors. What is more, Hausch and Steward (Hausch et al., 1993) observe an important problem – the level of the paid-out dividend is known, whereas the level of share redemption is uncertain.

Already in 1985, John and Williams (John et al., 1985) pointed out to another significant difference between the discussed forms of earnings transfer to shareholders. In the case of the dividend, the investor assumes tax liability towards the entire income. In the event when the investor sells the shares as a response to the share redemption executed by a company, on the other hand, the earnings, if any, from the sale of this investment are subject to taxation. In the event of the share redemption executed by the issuer, some investors can refrain from selling the shares in order to defer the tax obligation, which cannot be delayed in the case of the dividend (it should be added that tax issues are discussed from the point of view of an individual investor, and not an institution).

The research on methods of share redemption conducted by Comment and Jarrell (Comment et al., 1991) implies that the enterprises which apply offers of repurchase according to the old price, generate a stronger signal on the shares being undervalued than the repurchase on an open market. It may result from the fact that when determining the fixed price (often above the quoted price as of the date of announcing the plans to redeem shares), the management board signalizes to a greater extent what the actual value of the enterprise is in the management board's opinion.

Furthermore, the research conducted by Brav, Graham, Harvey, and Michaely (Brav et al., 2005) implies that share redemption applied by the management board is often a signal that, according to the company authorities, its listings are underestimated towards their actual internal value. The Authors also believe that dividends and share redemption should not be treated as substitutes, in particular considering the fact that the latter are applied after the dividend payout and implementation of investment projects, if any, so they are secondary in nature.

The research carried out by Grullon and Michaely (Grullon et al., 2004) indicate that the paid-out dividends, and share redemption and cancellation are substitutive towards each other. Similar studies were carried out by DeAngelo, DeAngelo, and Skinder (DeAngelo et al., 2000), the difference being that they were studying changes occurring in the payout policy. The Authors concluded that it is impossible to unambiguously confirm the substitutivity of the dividend payout and share redemption, as the processes of share redemption do not have a higher frequency than the dividend payouts.

Diversification of the elements of the financial results in the entities which implement a payout policy was a subject of studies of Jagannathan, Stephens, and Weisbach (Jagannathan et al., 2000). The Authors conducted analyses of determinants of the payout policy, which imply that not only are the dividend payout and share redemption carried out by companies at different times, but also these entities are characterized by different cash flow values. The companies which generate stable cash flow from operating activities pay out dividends more frequently.

The entities which execute share redemption more often exhibit higher and more variable cash flow on investment and financial activities.

This view is shared by Guay and Harford (Guay, Harford, 2000), who confirmed in their research that the companies which pay out dividends are characterized by quite stable cash flow, whereas the companies which redeem shares are characterized by momentary fluctuations of these values.

Brav, Graham, Harvey, and Michaely (Brax et al., 2005) believe, on the other hand, that from the point of view of financial results, dividends are paid out by the entities which are characterized by quite stable earnings, and share redemption is used by the enterprises which reach high non-repetitive earnings.

The choice between the dividend payout and share redemption and cancellation can be based on the guidelines proposed by Damodaran (Cwynar et al., 2007, pp. 205–206). They refer to the analyses of four factors, i.e. changes of financial results (if they are transitory, share redemption and cancellation is to be used instead of the dividend payout), the predicted future investment needs (if large capital-related needs are planned, it is recommended to execute share redemption and cancellation), shareholders' preferences (the lower the tax rate of the capital earnings, the more profitable for shareholders the transfer of earnings in the form of share redemption and cancellation is), and undervaluation of shares (share redemption can be a way to reduce disproportions between the quoted price and the higher internal value).

2. Methodology

2.1. Source data

The analysis covered the data of companies quoted at Warsaw Stock Exchange for the period of 2009–2013, with the exclusion of the companies belonging to the financial sector and foreign companies. Owing to the fact that the works were time-consuming, the analysis was limited to the companies belonging to the WIG20, mWIG40, and sWIG80 indexes. Financial data of the issuers were derived from the Notoria Serwis database, whereas the market data – from Warsaw Stock Exchange. The study covered 140 companies, of which 48 were classified as dividend companies, that is the companies which paid out the dividend at least 3 times during the previous 5 years. Additionally, companies which also redeemed and cancelled shares in the analyzed period were selected. It is a group of 15 dividend companies which redeem and cancel their shares.

2.2. General studies

In the analyzed period 2009–2013, the change in the number of companies executing share redemption and cancellation among dividend companies exhibited a higher degree of variability than the change in the number of companies paying out dividends. However, it should be pointed out that the direction of changes in the number of companies which transfer the company's profit to its shareholders, irrespective of the form of the transfer, assumed the same direction in the analyzed period (Figure 1).

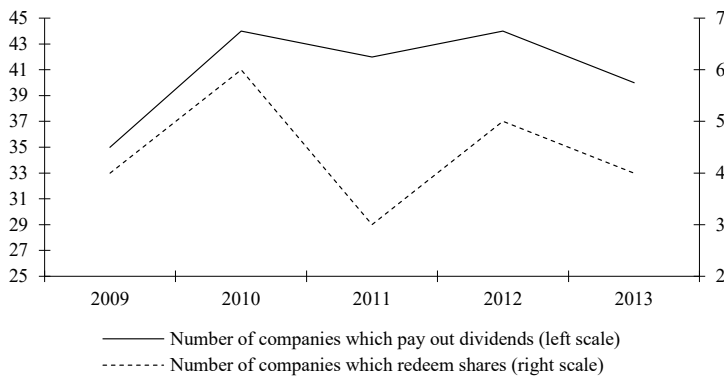


Figure 1. Number of companies which applied the payout policy in the period 2009–2013

Source: own elaboration.

Among all the analyzed companies which applied the payout policy, the largest income transferred to shareholders derived from the companies which were classified as the largest ones (WIG20), next, the companies from the group of mWIG40, and the lowest income was transferred from the companies characterized as the smallest among the analyzed companies, belonging to the sWIG80 index (Table 1).

Table 1. Total payouts for the benefit of shareholders (PLN)

Period	2009	2010	2011	2012	2013
Total payouts in companies, including companies from:					
WIG20	6,828,126,081	11,139,309,368	16,986,052,645	11,104,733,721	12,151,448,703
mWIG40	5,553,832,133	9,719,419,089	14,580,716,698	9,516,313,406	10,487,111,132
sWIG80	839,831,606	929,551,385	1,863,277,350	956,969,147	1,123,952,461
	434,462,342	490,338,894	542,058,597	631,451,168	540,385,110

Source: own elaboration.

In the period 2009–2013, a systematic increase of the amounts allocated to share redemption and cancellation is noticeable in the group of dividend companies, despite the fact that since 2011 the funds allocated to dividend payouts have decreased (Figure 2).

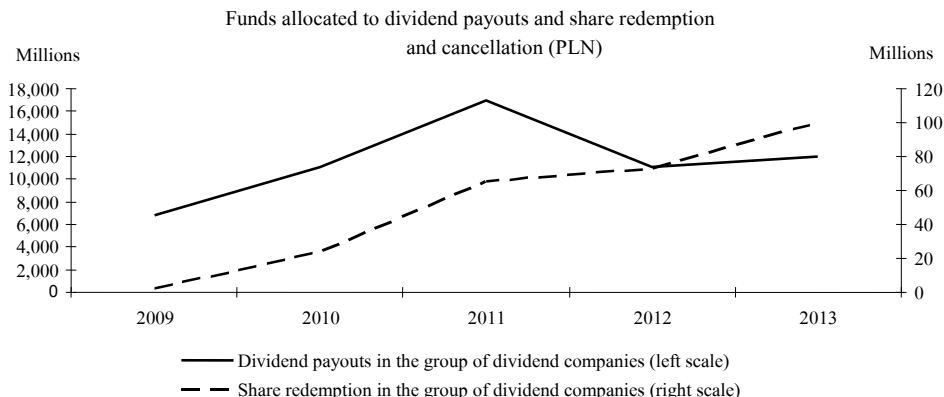


Figure 2. Changes in the amounts of funds allocated to the implementation of the payout policy in the period 2009–2013

Source: own elaboration.

From amongst all the 140 analyzed companies in the period 2009–2013, 48 issuers – denominated as dividend companies – were paying out dividends for at least 3 years. Among the dividend companies, 15 entrepreneurs additionally redeemed shares to cancel them, therefore, implemented the payout policy in its entirety. In the period covered in the study, there was no situation where the company redeemed shares and did not pay out dividends.

Referring to the share of the payout policy in the companies' earnings (Figure 3), on the basis of the studies conducted, it can be confirmed that a larger share in the companies' earnings is constituted by the amounts allocated to the dividend payouts, and a smaller one – by the amounts allocated to share redemption. Nevertheless, when analyzing the situation in the light of the companies' listings, it can be observed that the year 2011, which was characterized by a negative WIG return rate (–20.83%), resulted in a significant rise in the share in profits of the amounts allocated to share redemption and cancellation. At the time, the companies allocated lower amounts to the dividend payouts in comparison to their profits than a year before (less by 3.82 p.p.). The share of funds allocated to share redemption in the issuer's earnings, on the other hand, increased considerably – by as much as 13.03 p.p. It can signify the willingness of the company's management to take advantage of the market opportunity to redeem shares of undervalued companies, and, in doing so, to reduce disproportions between the share price and the fundamental value of issuers.

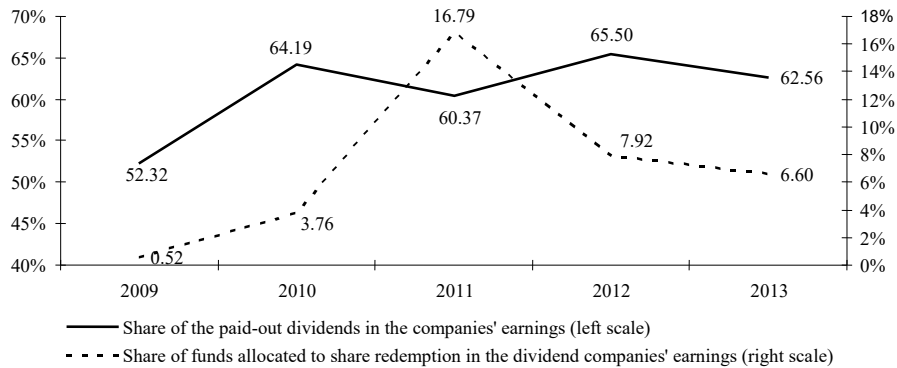


Figure 3. Share of the payout policy in the companies' earnings

Source: own elaboration.

The study of the changes in the number of the companies within the group of the companies which pay out only dividends, and the group of the companies which at the same time pay out dividends and redeem and cancel shares, in relation to the changes in the listings at Warsaw Stock Exchange, indicates that there is a stronger relationship between the change in the number of the companies which apply a full payout policy, and the change of the WIG listings, than there is in the case of the companies which apply only dividend payouts (Table 2).

Table 2. Coefficient of correlation between the level of listings and the payout policy

	Pearson product-moment correlation coefficient	Spearman's rank correlation coefficient
Correlation coefficient of the level of WIG listings with the number of companies which pay out dividends	-0.47	-0.13
Correlation coefficient of the level of WIG listings with the number of dividend companies which redeem shares	0.47	0.48

Source: own elaboration.

The analysis of the concentration of the payout policy of the issuers for the period 2009–2013 confirms the study results presented on Figure 3. It can be concluded that fewer companies execute payments for the benefit of their shareholders in the period of a slump at Warsaw Stock Exchange. Thus the concentration of payouts in the period of depreciation of listings rises, which means that the issuers transfer larger amounts for the dividend payouts and share redemption and cancellation (Figure 4).

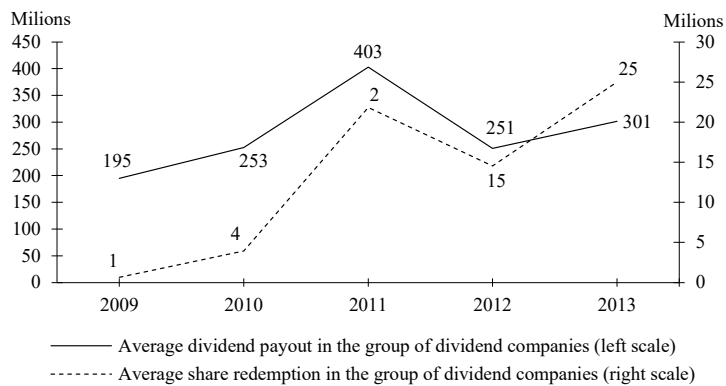


Figure 4. Concentration of payouts for the benefit of shareholders in the period 2009–2013 (PLN)

Source: own elaboration.

2.3. Detailed studies

The detailed studies referred to – without limitations – the demonstration of relationships between the dividend payout and net profit, gross profit on sales, profit on sales, operating profit, total cash flow, balance sum, investment cash flow, level of fixed assets, cash, equity capital, and the debt level of the issuer (total external capital and short-term liabilities).

The conducted studies demonstrated a strong link between the results of the companies at the level of net profit with the paid-out dividends. Simultaneously, in the analyzed period 2009–2013, there was a negative relationship between the share redemption executed by the dividend companies and the net profit (Table 3).

Table 3. Coefficient of correlation of companies' profits depending on the form of the payout policy

	Pearson product-moment correlation coefficient	Spearman's rank correlation coefficient
Coefficient of correlation of paid-out dividends with the net profit of the examined companies	0.96	1.00
Coefficient of correlation of cash allocated to share redemption with the net profit of the examined companies	–0.24	–0.60

Source: own elaboration.

The results of the study of correlation of the remaining elements of the financial report with the payout policy are presented in Tables 4 and 5.

The conducted studies suggest that there is a strong positive relationship between the dividend payout and those results which could be generally classified as profits, i.e. net profit, gross profit on sales, profit on sales, and operating profit. Between share redemption and cancellation and the same category of financial results, on the other hand, there is no positive relation.

Table 4. Coefficients of correlation of the companies' results with the payout policy

	Gross profit on sales		Profit on sales		Operating profit	
	pearson product-moment correlation coefficient	spearman's rank correlation coefficient	pearson product-moment correlation coefficient	spearman's rank correlation coefficient	pearson product-moment correlation coefficient	spearman's rank correlation coefficient
Dividend payouts by dividend companies, including companies from:						
WIG20	0.94	0.60	0.96	0.90	0.98	0.90
mWIG40	0.93	0.60	0.95	0.90	0.97	0.90
sWIG80	0.44	0.70	0.80	0.90	0.83	0.90
Share redemption executed by dividend companies, including companies from:						
WIG20	-0.90	-0.70	-0.91	-0.90	-0.46	-0.50
WIG20	-0.55	-0.70	-0.38	-0.50	-0.19	-0.10
mWIG40	0.83	0.60	-0.09	0.30	-0.03	0.30
sWIG80	0.54	0.75	0.69	0.75	0.65	0.75
	-0.54	-0.80	-0.70	-0.80	0.16	-0.20
	Cashflow		Investment cashflow		Balance sheet total	
	pearson product-moment correlation coefficient	spearman's rank correlation coefficient	pearson product-moment correlation coefficient	spearman's rank correlation coefficient	pearson product-moment correlation coefficient	spearman's rank correlation coefficient
Dividend payouts by dividend companies, including companies from:						
WIG20	0.94	0.40	0.25	0.40	0.65	0.50
mWIG40	0.33	0.40	0.11	0.40	0.65	0.50
sWIG80	0.64	0.70	0.09	0.20	0.47	0.90
Share redemption executed by dividend companies, including companies from:						
WIG20	0.43	0.30	-0.08	0.00	0.88	1.00
WIG20	-0.27	-0.10	0.63	0.50	0.01	0.20
mWIG40	0.13	0.10	0.03	0.10	-0.20	0.60
sWIG80	0.17	0.50	-0.46	0.00	0.63	0.75
	0.13	0.50	0.40	0.50	-0.45	-0.60

Source: own elaboration.

Table 5. Coefficients of correlation of the companies' results with the payout policy

	Fixed assets		Cash		Equity capital	
	pearson product-moment correlation coefficient	spearman's rank correlation coefficient	pearson product-moment correlation coefficient	spearman's rank correlation coefficient	pearson product-moment correlation coefficient	spearman's rank correlation coefficient
Dividend payouts by dividend companies, including companies from:	0.39	0.50	0.66	0.50	0.72	0.50
WIG20	0.40	0.50	0.68	0.10	0.75	0.80
mWIG40	0.23	0.70	-0.17	-0.50	0.46	0.90
sWIG80	0.88	0.90	0.77	0.90	0.88	1.00
Share redemption executed by dividend companies, including companies from:	0.98	0.90	-0.72	-0.80	0.77	0.70
WIG20	0.49	0.60	-0.47	-0.30	0.31	0.60
mWIG40	0.40	0.50	0.15	0.25	0.57	0.50
sWIG80	0.33	0.50	0.18	0.60	0.79	0.70
	External capital – coefficient of		Short-term liabilities – coefficient of			
	pearson product-moment correlation coefficient	spearman's rank correlation coefficient	pearson product-moment correlation coefficient	spearman's rank correlation coefficient		
Examined dividend companies, including companies from:	0.50	0.50	0.79	0.80		
WIG20	0.43	0.30	0.79	0.40		
mWIG40	0.48	0.90	0.44	0.90		
sWIG80	0.71	0.60	0.64	0.50		
Share redemption executed by dividend companies, including companies from:	-0.72	-0.70	-0.27	-0.20		
WIG20	-0.59	-0.10	-0.11	0.50		
mWIG40	0.65	0.75	0.32	0.50		
sWIG80	-0.67	-0.60	-0.71	-0.60		

Source: own elaboration.

It is impossible to find any relation between total cash flow and investment cash flow, on the one hand, and the dividend payout or share redemption and cancellation, on the other hand. There is, however, a strong positive relation between share redemption and cancellation, the value of fixed assets of issuers, and the value of the equity capital. The same elements of the financial report, on the other hand, do not exhibit such a strong relation with the paid-

out dividends. From amongst the analyzed elements of financial reports, short-term liabilities exhibit a high level of positive relations with the paid-out dividends.

When analyzing the interdependence of the elements of the financial reports with the payout policy, with the breakdown into individual indexes to which the companies belong, it is possible to state that the larger the company, the more visible the convergence of the study results with the general group of companies.

The analysis of the market parameters of the companies was based on the analysis of P/E and P/BV (Table 6 and 7).

Table 6. Average values of P/E of the companies which implement the payout policy

Average P/E	2009	2010	2011	2012	2013
Examined dividend companies	21.32	23.75	12.22	16.87	21.40
Examined companies which redeem shares from amongst dividend companies	18.39	25.55	8.57	18.68	25.03

Source: own elaboration.

Table 7. Average values of P/BV of the companies which implement the payout policy

Average P/BV	2009	2010	2011	2012	2013
Examined dividend companies	2.07	2.34	1.76	2.16	2.66
Examined companies which redeem shares from amongst dividend companies	1.84	1.95	1.38	1.60	1.96

Source: own elaboration.

For the parameter P/E, for dividend companies and the dividend companies which redeem shares, it is impossible to observe any repetitive tendencies. For the parameter P/BV, on the other hand, it can be noticed that in the entire analyzed period the companies which redeem shares are characterized by its lower values than the companies which only pay out dividends (Figure 5).

The largest share of the companies which implement the payout policy is represented by the WIG20 index, next mWIG40, and the smallest share is constituted by the companies from the sWIG80 index. Beyond the period 2009, this breakdown did not change (Figure 6).

When comparing dividend companies and the dividend companies which redeem and cancel shares, the Authors noticed differences in the Return on Equity of these companies (Table 8).

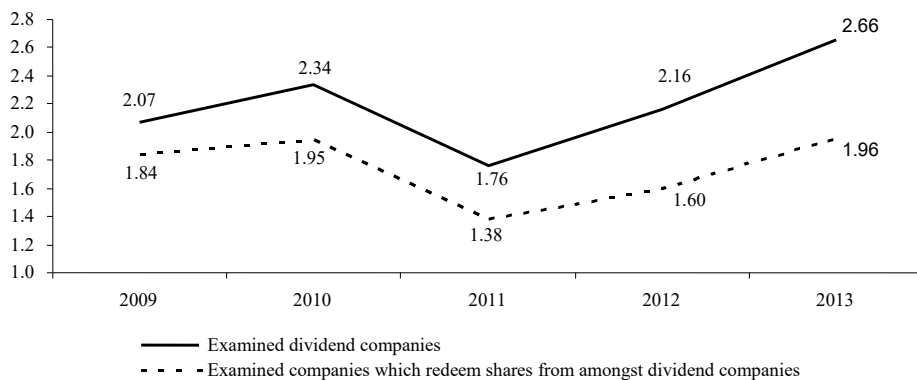


Figure 5. Average values of P/BV in the examined companies

Source: own elaboration.

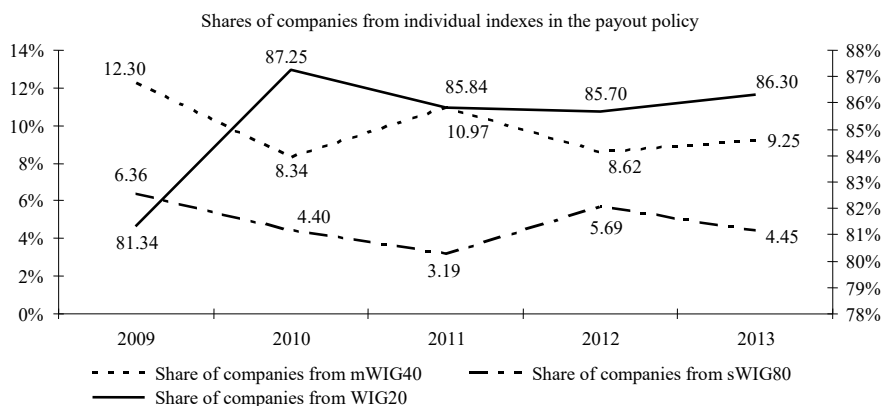


Figure 6. Changes in the period 2009–2013

Source: own elaboration.

Table 8. Return on Equity in the companies which implement the payout policy (%)

Return on Equity	2009	2010	2011	2012	2013
Examined dividend companies	12.88	13.72	15.25	13.40	13.23
Examined dividend companies which redeem shares from amongst dividend companies	12.03	11.88	13.85	9.13	8.39

Source: own elaboration.

In the period 2009–2013, dividend companies were characterized by a higher level of return on equity in comparison to the dividend companies which redeem shares (Figure 7).

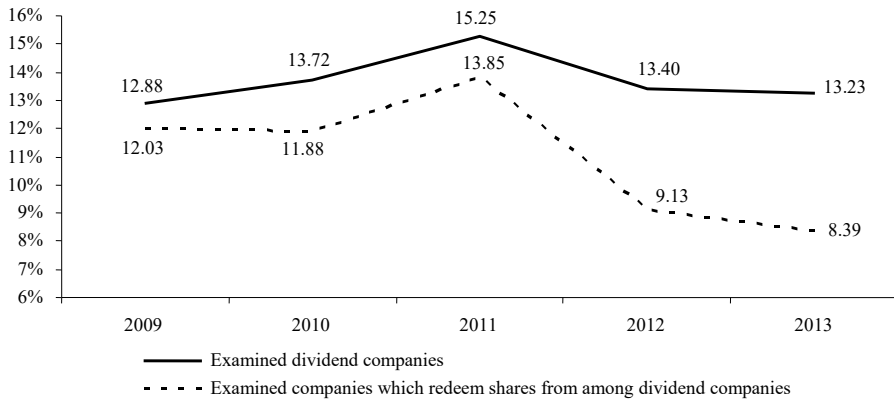


Figure 7. Average Return on Equity in the companies which implement the payout policy

Source: own elaboration.

The last element of the conducted studies was a comparison of the variability of results of the dividend companies and issuers which redeem shares from amongst dividend companies (Table 9). As the comparison referred to the variability of results of the issuers, the variation coefficient was used for this purpose because its indications are comparable.

Dividend companies exhibit a higher level of variability of gross profit on sales, profit on sales, cash flow, balance sum, fixed assets, cash, and equity capital. The companies which redeem shares from amongst dividend companies, on the other hand, exhibit a higher level of variability of the remaining examined elements of the financial reports. A particularly considerable disproportion for the benefit of the companies which redeem shares is visible in investment cash flows.

On the basis of the studies conducted, the following regularities can be identified. In the group of selected items of results connected with the profit and loss account and the balance sheet (apart from liabilities), a higher level of variability is exhibited by the companies which redeem shares, whereas it is impossible to identify any significant regularities between the companies from the indexes of WIG20, mWIG40, and sWIG80, apart from the one that among both of the examined groups of the companies, the highest level of the cash flow and investment cash flow is exhibited by the largest companies, that is the companies from the WIG20 index.

Table 9. Coefficient of variation of results of the companies which implement the payout policy

	Gross profit on sales	Profit on sales	Operating profit	Net profit	Cash flow	Investment cash flow
Examined dividend companies, including companies from:	0.15	0.14	0.26	0.27	24.13	1.28
WIG20	0.22	0.16	0.28	0.28	34.86	2.15
mWIG40	0.15	0.15	0.22	0.32	3.52	0.82
sWIG80	0.03	0.17	0.21	0.11	0.60	0.58
Examined companies which redeem shares from amongst dividend companies, including companies from:	0.10	0.36	0.43	0.38	12.84	13.85
WIG20	0.12	0.38	0.48	0.40	13.26	23.23
mWIG40	0.18	1.82	4.51	1.58	1.69	2.43
sWIG80	0.25	0.44	0.32	0.14	2.87	2.41
	Balance sheet total	Fixed assets	Cash	Equity capital	External capital	Short-term liabilities
Examined dividend companies, including companies from:	0.09	0.12	0.39	0.09	0.10	0.11
WIG20	0.10	0.13	0.56	0.10	0.10	0.13
mWIG40	0.09	0.11	0.20	0.07	0.16	0.14
sWIG80	0.05	0.10	0.13	0.06	0.05	0.06
Examined companies which redeem shares from amongst dividend companies, including companies from:	0.04	0.04	0.30	0.04	0.11	0.13
WIG20	0.04	0.03	0.32	0.04	0.10	0.13
mWIG40	0.06	0.03	0.35	0.03	0.20	0.10
sWIG80	0.06	0.16	0.49	0.06	0.22	0.25

Source: own elaboration.

Conclusions

The following conclusions were drawn on the basis of the study conducted for the period 2009–2012 among dividend companies belonging to the indexes of WIG20, mWIG40, and sWIG80:

1. In the examined period, there was no company which would redeem shares without paying out the dividend at the same time.

2. Among all of the analyzed companies which implement the payout policy, the companies from the WIG20 index transferred the biggest amounts to their shareholders, and the companies from the WIG80 index – the smallest.

3. In the profit of the companies, a larger share was constituted by the amounts allocated to the dividend payouts than to share redemption.

4. In the period of a slump at Warsaw Stock Exchange, a significant increase of the share in the profit of the amounts allocated to share redemption and cancellation was observed. Thus concentration of payouts in the period of listings depreciation increased, which means that fewer issuers transferred larger amounts to the dividend payouts and share redemption and cancellation.

5. There was a stronger relationship between the change of the number of the companies which implement the full payout policy and the change of WIG listings, than in the case of the companies which only paid out the dividend.

6. The studies conducted pointed out to a strong relationship between the results of the companies at the level of the net profit and the paid-out dividends, and, at the same time, to a rather minor negative relationship with share redemption executed by dividend companies.

7. On the basis of the analysis of Spearman's rho, it was concluded that there was a relationship between:

- a) the dividend payout and the results which could be generally classified as profit, i.e. net profit, gross profit on sales, profit on sales, and operating profit;
- b) the dividend payout and short-term liabilities;
- c) share redemption and cancellation executed by dividend companies and the value of fixed assets of the issuers and the value of the equity capital.

8. On the basis of the analysis of Spearman's rho, no strong relationship was confirmed between:

- a) the total cash flow and investment cash flow on the one hand, and the dividend payout or share redemption and cancellation on the other hand;
- b) the results which could be generally classified as profits, i.e. net profit, gross profit on sales, profit on sales, and operating profit on the one hand, and share redemption and cancellation on the other hand.

9. In case of the parameter P/BV, it can be observed that the dividend companies which redeem shares in each of the analyzed periods exhibit lower values of this parameter than the companies which only paid out the dividend.

10. Dividend companies exhibit a higher level of the Return on Equity.

11. Dividend companies exhibit a higher level of variability of gross profit on sales, profit on sales, cash flow, balance sum, fixed assets, cash, and equity capital.

12. The companies which redeem shares from amongst dividend companies exhibit a higher level of operating profit, net profit, investment cash flow, external capital, and short-term liabilities.

13. In the group of the selected items of results connected with the profit and loss account and the balance sheet (apart from liabilities), the companies which redeem shares exhibit a higher level of variability.

14. Among dividend companies and the dividend companies which redeem shares, the highest level of variability of the cash flow and investment cash flow is exhibited by the largest companies, that is the companies from the WIG20 index.

On the basis of the studies conducted, the assumed research hypotheses were verified, and on this basis the following observations were made:

- H1:** The companies quoted at Warsaw Stock Exchange pay out the dividend more often than they redeem and cancel shares.
- H2:** The companies quoted at Warsaw Stock Exchange allocate larger amounts to the dividend payout than to share redemption and cancellation.
- H3a:** The increase of a company's profits influences the increase of the paid-out dividend.
- H3b:** The changes in the company's profits do not influence the analogous changes in the amounts allocated to share redemption and cancellation.
- H4a:** Changes of net profit, gross profit on sales, profit on sales, operating profit, and short-term liabilities do not have a significant impact on the change of the amount of money allocated to the dividend payout.
- H4b:** Changes of the total cash flow and investment cash flows do not have a significant impact on the change of amounts allocated to the dividend payout.
- H5a:** Changes of the value of fixed assets and the value of equity capital of the issuers have a significant impact on the changes in the amounts allocated to share redemption and cancellation among dividend companies.
- H5b:** Changes of net profit, gross profit on sales, profit on sales, and operating profit with share redemption and cancellation do not have a significant impact on the change of the amount of money allocated to the share redemption and cancellation among dividend companies.
- H6a:** Dividend companies which redeem shares exhibit a higher level of variability of operating profit, net profit, investment cash flow, external capital, and short-term liabilities.
- H6b:** Dividend companies exhibit a higher level of variability of gross profit on sales, profit on sales, cash flow, balance sheet total, fixed assets, cash, and equity capital.

- H7:** The dividend companies which redeem shares in each analyzed period exhibit lower values of the parameter P/BV than the companies which pay out only dividends.
- H8:** Dividend companies exhibit a higher level of ROE than the dividend companies which execute share redemption.

Considering the conducted research, conclusions from general and detailed studies, as well as the verified hypotheses, one can notice properties of dividend companies and of the dividend companies which additionally redeem shares which make them different.

Therefore, despite the fact that both groups include companies belonging to the category of dividend companies, it is possible to identify among them the companies which implement the full payout policy. Most of all, they are characterized by:

- dependence on the executed share redemption to the value of the company's fixed assets and to the value of its equity capital,
- a lack of a positive interdependence from other analyzed elements of financial reports, including most of all net profit and cash (Spearman's rho -0.6 and -0.8 , respectively), which for dividend companies equalled 1 and 0.5,
- lower value of P/BV than in the case of dividend companies,
- lower values of ROE than in the case of dividend companies,
- a higher level of variability of operating profit, net profit, investment cash flow, external capital, and short-term liabilities.

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