
Catering Theory of Dividend Policy in Polish Listed Companies

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Abstract:

Purpose: The purpose of the article is to examine whether the catering theory is reflected in Polish listed companies in 2013-2020.

Design/methodology/Approach: The study was conducted between 2013 and 2020. To verify the hypotheses, financial data was obtained from the Thompson Reuters database. The aim of the study was to verify whether the catering theory is applicable to Polish listed companies. Accordingly, it was assumed that decisions to pay dividends to shareholders are made in companies valued higher by the market (dividend-paying companies). The measure of valuation of the two groups of companies (group 1 - dividend-paying companies, group 2 - non-dividend-paying companies) was the MV / BV ratio according to the adopted Baker's methodology. The valuation of dividend-paying companies was set against non-dividend-paying companies.

Findings: In view of the research conducted, it should be concluded that the catering theory is justified for the Polish listed company market.

Practical Implications: The article examines the significance of the catering theory of dividend policy and investigates whether it can be discussed in the context of Polish listed companies.

Originality/Value: The article undertakes a discussion in the area of dividend policy and one of the theories catering theory in dividend policy.

Keywords: Catering theory, dividend policy, finance.

JEL codes: G140, G170.

Paper type: Research article.

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1. Introduction

Dividend policy decisions involve decisions that can be reduced to two areas: : what portion of profits should be paid over a certain period of time, and whether the company should maintain a constant, stable growth rate. If a constant and stable growth rate is maintained then the level of profits earned will increase from period to period. This translates directly into the company's ability to share profits with shareholders . The developing Polish stock market indicates an increase in the interest of companies in the dividend policy itself. The existence of this phenomenon is confirmed by the growing number of companies paying dividends.

In the oldest literature on the subject, three fundamental theories related to dividend policy are known. These are: the irrelevance theory, the 'sparrow in the hand' theory, the signalling theory and the tax preference theory. In each of these, the authors have made assumptions under which the use of dividend policy in a company is justified.

The non – signalling theory assumes, there are no taxes on companies and their income, there are no costs associated with dividends, the distribution of net income has no effect on the cost of a company's share capital, the policy associated with a company's budget is independent of that company's dividend policy.

The 'sparrow in the hand' theory assumes, the investor's long – term income is known, the company does not use external financing, the company will always exist, taxes do not exist, the company always grows at the same rate, the dividend policy is fixed. Tax preference theory assumes, investors receiving dividend prefer to receive low volumes of dividend paid or, in some situations, prefer to forego dividend altogether because of the tax on profits (dividends received), which is compulsory in many countries. The signalling theory posits that the size of dividends paid is a signal to shareholders about the level of earnings they are likely to receive in the present or future.

Others of studies also suggest that the dividend paid is a signal to shareholders about the stability of the cash flows that company will have in the future. The positive information provided by company towards the market is a signal for investors to invest and transfer their surplus capital. Interest in the topic concerning dividend policy, among academics, has given rise to a number of theories and hypotheses on the subject. The first authors of the neutrality theory were Miller and Modigliani, (Kaźmierska – Józwiak 2015).

The theory of neutrality, was confirmed by empirical studies by Black and Scholes, (Gajdka, 2013). Their research, carried out between 1936 and 1966, indicated that there was no relationship between dividends and shareholder return. The rate of return was understood as the difference between the share price the investor paid and the share price the investor received by selling the share. In addition, the study took

into account the preference for the amount of possible dividends in the future, for particular groups of investors.

Analysing the research, investors who prefer high dividends should, without affecting the change in share prices, transfer their capital to companies that pay such dividends. The result of empirical research contradicting the assumptions of the neutrality theory is the 'sparrow in the hand' theory by Gordon and Lintner, (Kaźmierska-Jóźwiak, 2015).

Each time a dividend is paid to shareholders, it is taxed twice. First, the company's profit is taxed and then the income of the investors who received the dividend. The first researchers who focused their research on analysing the tax preferences of individual shareholders were - Miller and Modigliani, (Kaźmierska - Jóźwiak, 2015). In their hypothesis, they considered that different groups of investors are burdened with completely different tax rates. In addition, the individual investor groups, in their choices, are primarily guided by the tax rates on dividends - it is important to reduce the amount of taxation on previously earned income.

From the point of view of investors, in addition to the amount of tax rates required to be paid on dividends received, the timing of the payment of the required tax rates is also important. As in the case of the neutrality theory, as well as the theory concerning tax preferences, this has formed the basis for further theoretical and empirical considerations in the area of dividend policy.

Research by Chetty and Saedza, (Gajdka, 2013) proved that the preferences of majority investors influence company decisions related to tax aspects. Empirical studies have confirmed that shares with low dividend yields are chosen by investors who are burdened with high tax rates. The opposite is true when the investor pays much lower taxes, in which case his or her interest is much greater in purchasing stocks that guarantee high dividend yields.

The above theory indicated that as more dividends are paid, the risk of individual and institutional investors losing their invested money decreases. The above dividend policy considerations should therefore be classified as theories belonging to the classical area of finance. The area of behavioural finance, on the other hand, includes catering theory, which explains a number of decisions within corporate finance, primarily those relating to dividend policy.

2. Literature Review

In the oldest literature on the subject, three fundamental theories related to dividend policy are known. These are: the irrelevance theory, the "sparrow in the hand" theory, the signaling theory and the tax preference theory. In each of these, the authors have made assumptions under the fulfillment of which the application of

dividend policy in a company is justified. They are presented below, along with the most important assumptions for them.

The theory of irrelevance assumes: there are no taxes on companies and their income, the costs associated with dividends do not occur, the distribution of net income does not affect the cost of a company's share capital, the policy associated with the company's budget is independent of the company's dividend policy.

The "sparrow in the hand" theory assumes, the investor's long-term income is known, the company does not use external sources of financing, the company will always exist, taxes do not exist, the company always grows at the same rate, the dividend policy is fixed. Tax preference theory assumes (Walińska and Gajdka, 2002) investors receiving dividends prefer to receive low volumes of dividends paid or, in some situations, prefer to forego dividends altogether because of the tax on profit (dividends received), which is mandatory in many countries. The signaling (Żyżyński, 1998) theory posits that the size of dividends paid is a signal to shareholders about the level of earnings they are likely to receive in the present or future.

Others of the studies also suggest that the dividend paid is a signal to shareholders about the stability of cash flows that a company will have in the future. The positive information conveyed by a company to the market is a signal for investors to invest and transfer their surplus capital. Each subsequent theory related to dividend policy is derived from the oldest theories.

The catering theory is presented in the work of Baker and Wurgler (2004). It incorporates three basic assumptions: firstly, investors have a time-varying demand for shares on which dividends are paid, secondly, arbitrage is not an effective means that can decouple share prices from said changes in demand, and thirdly managers catering to investor demand pay dividends when investors are willing to pay high prices for dividend-paying shares and not paying dividends when investors value shares of non-dividend-paying companies higher (Gajdka, 2013).

Baker and Wugler conducted a study on the reasons for the decline in the share of dividend-paying companies in the population of public companies, in a sample of listed companies in the United States. The study was conducted between 1963 and 2000, and the results confirmed a statistically significant correlation between the share of dividend-paying companies and the dividend premium. The authors introduce a variable in their study, which they call the dividend premium. By definition, it is the difference between the average value of the market capitalisation to book value ratio.

The dividend premium ratio was determined for companies that pay dividends and companies that do not pay dividends. In the research, the pioneers of the catering theory of dividends test whether the aggregate rate of dividend initiation and

dividend cessation are related to the dividend premium. Research in this area has confirmed the existence of a catering theory of dividends. On the other hand Eije and Megginson (2008) in surveyed listed companies from fifteen European countries in the period 1989-2003 did not show statistically significant correlations for the existence of a catering theory in dividend policy.

A study by Ferris *et al.* (2006) in the area of UK-listed companies confirmed the assumptions of the catering theory proposed in the methodology of Baker and Wurgler's paper the propensity to change in dividend payments is caused by a change in the valuation of dividend-paying companies relative to non-dividend-paying companies. In a study of six countries (the largest financial markets in Europe - including France, the UK, (Denis and Osoboy, 2008)), they find that some of their findings appear inconsistent with the catering theory proposed by Baker and Wurgler. In particular, they find that unexpected reductions in the proportion of dividend payers occur in countries where the dividend premium is largely positive.

They also find that these reductions are driven by lower rates of dividend-initiating companies by newly listed firms. In a large sample size study on the catering theory of dividends (Ferris *et al.*, 2009), they find significant global variation in dividend propensity in a sample of firms representing 23 different countries, using a sample of almost 25,000 observations.

According to the authors, the satisfaction of investors' expectations in the context of dividend payout is strictly dependent on the investor protection laws in place in a given country. Research conducted on the Polish market in the area of catering theory also lacks clear results and consistent conclusions. In a study by Polish authors, the results presented did not confirm a statistically significant relationship between the relative change in the dividend premium in a given year and the relative change in the percentage of companies paying dividends in the following year (Kaźmierska - Jóźwiak, 2015).

In contrast, the same study found a statistically significant relationship between the change in the percentage of companies paying dividends and the return on the WIG index. The positive relationship indicates, contrary to the US market, that the percentage of companies paying dividends increases in times of capital market prosperity (Thalassinos *et al.*, 2021). The conclusions drawn in the research concerned the period 2001 - 2012 under study. An analysis of the literature indicates that there are no consistent and unambiguous results on the catering theory of dividends - despite the passage of years since the first proposal of the theory appeared and subsequent research conducted in this area.

Therefore, the aim of the article is to test whether the catering theory is applicable to Polish listed companies. The research was conducted for the years 2013 - 2020. The article is structured according to the following elements: part one is a review of the foreign and domestic literature on the catering theory, part two is a description of the

methodology used and a description of the research sample, part three is the results of the conducted own research and the final conclusions.

3. Methodology

The study was conducted between 2013 and 2020. To verify the hypotheses, financial data was obtained from the Thompson Reuters database. The aim of the study was to verify whether the catering theory is applicable to Polish listed companies. Accordingly, it was assumed that decisions to pay dividends to shareholders are made in companies valued higher by the market (dividend-paying companies).

The measure of valuation of the two groups of companies (group 1 - dividend-paying companies, group 2 - non-dividend-paying companies) was the MV / BV ratio according to the adopted Baker's methodology. The valuation of dividend-paying companies was set against non-dividend-paying companies.

Accordingly, the hypotheses are as follows:

H1: As the number of dividend-paying companies increases, the dividend premium increases.

H2: Increase in dividend premium is important for the level of returns on the WIG-20 index.

The research and the hypotheses put forward in the paper are a continuation of the research proposed by Kaźmierska - Józwiak (2015), as the forecasts indicated by the Author indicated that the level of dividend premium would show an increasing trend in the following years. Consequently, there was a presumption that companies would show more interest in the dividend paid out in subsequent years.

There was therefore a reasonable assumption that greater interest in dividends paid would result in a more accurate justification of the catering theory for Polish listed companies. Accordingly, stage one of the study consisted of presenting the number of companies on the Warsaw Stock Exchange that pay dividends. Stage two of the study contrasted the above group with the number of companies that do not pay dividends to their shareholders.

The surveyed groups also presented those companies that were starting to pay dividends. In stage three of the study, the MV/BV ratio values were determined for each company, followed by the arithmetic averages of the MV/BV ratio for the groups of companies paying and not paying dividends. Stage four of the study involved calculating the dividend premium - the difference for the MV/BV ratio values for dividend-paying companies and the MV/ BV ratio values for non-dividend-paying companies.

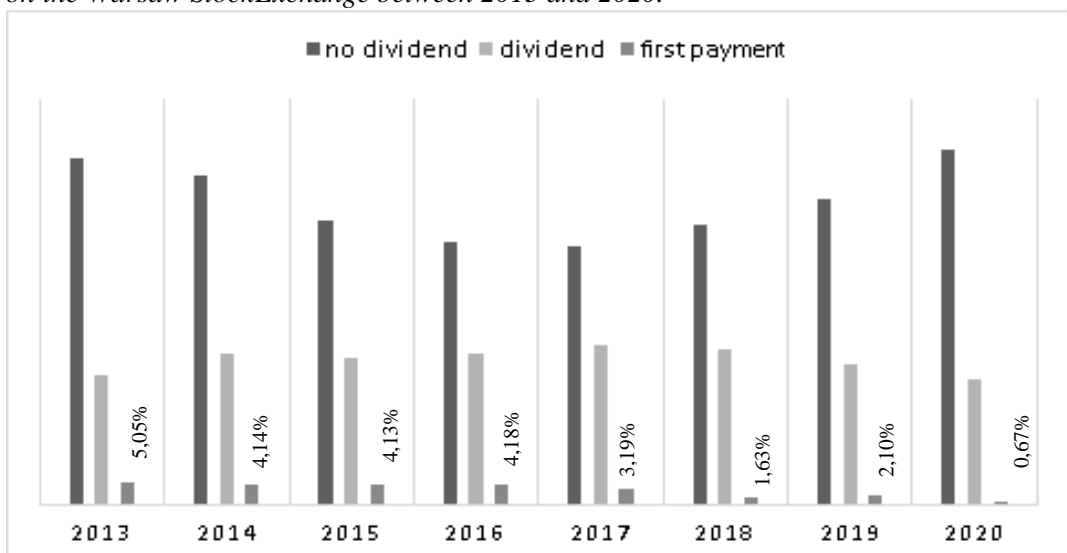
In the fifth stage of the study, the rates of return on the WIG index were determined. Data on the WIG index returns were obtained from the yearbooks of the Warsaw Stock Exchange for the years 2013- 2020. In order to verify the adopted hypotheses, a correlation analysis was conducted. Due to the fact that at each stage of the study we are dealing with a small population (annual data) and the correlations between variables are curvilinear in nature, Pearson's rank correlation coefficient was applied. A total of 328 companies were surveyed in the period 2013 - 2020. The completed study does not include the period of the beginning of the global pandemic.

Due to the turbulence in global financial markets, the data obtained for the study might not fully reflect the tested assumptions of the catering theory. Due to the peculiarities of this period, a further study of the catering theory should be undertaken only for the period of the pandemic itself and a comparative analysis should be made - of the financial data of listed companies for the period before and during the Covid - 19 pandemic.

4. Research Results and Discussion

The first and second stages of the study consisted of presenting the number of companies on the Warsaw Stock Exchange that pay dividends and companies that do not pay dividends. The data collected is presented in Figure 1.

Figure 1. Percentage share of dividend-paying and non-dividend-paying companies on the Warsaw StockExchange between 2013 and 2020.



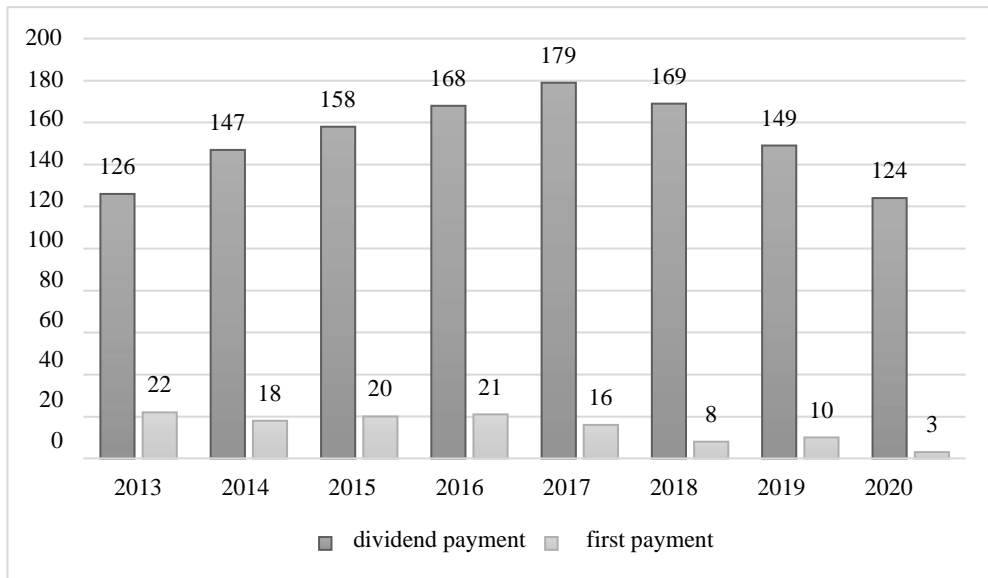
Source: Own compilation based on Thomson Reuters database.

Figure 1 shows the division of Warsaw listed companies into three groups: companies paying dividends, companies not paying dividends, and companies

initiating dividend payments for the first time. Between 2013 and 2017, a decreasing trend can be seen related to the number of companies that did not pay dividends in favour of companies that paid dividends to shareholders. Between 2017 and 2020, a reversal of the trend associated with each group of companies can be seen - the number of companies that did not pay dividends in each year increases, while the number of companies that paid dividends decreases.

This is in line with the global trend in which we can clearly see a decline in dividend payments in global markets during this period. In addition, the third group, companies initiating dividend payments, represented a small proportion of all companies surveyed in each year - the highest proportion of all companies surveyed was in 2013, at 5.05%.

Figure 2. Number of companies that paid dividends and number of companies initiating dividends between 2013 and 2020.



Source: Own study.

In the third stage of the study, the MV/BV ratio values were determined for each company, followed by the arithmetic averages of the MV/BV ratio for the groups of dividend-paying and non-dividend-paying companies. The MV/BV ratio consisted of determining specific values for each company that was considered in the study. Based on the data in the 2013 - 2020 financial statements for each company, the following was determined: size of assets, size of external capital, share price (determined for each company at the end of a given year), number of shares.

Based on the collected financial data, the average MV/BV ratio for a given year was determined. The calculated arithmetic averages for companies in a given year were

divided into two groups: the MV/BV ratio for companies not paying dividends and the MV/BV ratio for companies paying dividends. Based on the difference in the value of the calculated ratio for the two groups, the dividend premium was calculated. The calculated values are presented in Table 1.

Table 1. Average MV/BV ratio for non-dividend-paying companies and average ratio for dividend-paying companies by year

	MV/BV ratio for companies not paying dividends	MV/BV ratio for companies paying dividends	Dividend premium
2013	0,0142	2,0454	2,0312
2014	0,0176	1,7223	1,7048
2015	0,0144	3,8814	3,8670
2016	0,0238	2,3680	2,3442
2017	0,0118	1,6255	1,6137
2018	0,0150	2,1784	2,1634
2019	0,0147	1,2616	1,2469

Source: Own compilation based on surveyed companies listed on the WSE between 2013 and 2020.

Calculated on the basis of financial data, the average MV/BV ratio for the two groups of companies surveyed indicates very interesting and important information. It can be clearly seen from Table 1 that the values of the MV/BV ratio are higher for companies paying dividends. In the period under study, the highest value of the MV/BV ratio in the group of dividend-paying companies was 3.8814 in 2015, while the lowest average value of this ratio was in 2020. The second studied group of companies that did not pay dividends in the year under study shows a small value of the average MV/BV ratio.

For this analysed group of companies, the value of the MV (market value) ratio is very close to the value of the BV (book value) ratio. For dividend-paying companies, the value of the MV (market value) ratio exceeds the value of the BV (book value) ratio at least once in all analysed years. The dividend premium calculated on the basis of the difference in the average values of the MV/BV ratio of the two study groups indicates that the companies were better perceived by investors during the study period.

On the other hand, in the value of the dividend premium itself, not much deviation from the individual values can be seen. The highest value of the dividend premium was recorded in 2015, while the lowest value was recorded in 2017. In connection with hypotheses H1 and H2, a Pearson linear relationship test was conducted.

Table 2 presents the results of Pearson's linear relationship test for the dividend premium and the percentage of companies paying dividends.

Table 2. Dividend premium vs. percentage of companies paying dividends

Pearson linear relationship	
p-value bilateral	0.036011
p-value one-sided	0.018005
Level of significance 0.05	

Source: Own research.

The results presented in Table 2 show that there is a positive relationship between the dividend premium in a given year and the number of companies paying dividends in subsequent years. Therefore, the hypothesis H1 posed in the article should be accepted. However, it should be assessed that the strength of this relationship is at the lower bound. In order to verify the H2 hypothesis, Pearson's linear correlation analysis was performed with the WIG index returns. The results are presented in Table 3.

Table 3. Dividend premium vs. returns on the WIG index

Pearson linear relationship	
p-value bilateral	0.020765
p-value one-sided	0.010382
Level of significance 0.05	

Source: Own research.

The results presented in Table 3 show that there is a positive relationship between the dividend premium in a given year and the return on the WIG index. Therefore, the hypothesis H2 posed in the article should be accepted. Accordingly, it should be considered that a change in the value of the return on the WIG index in a positive direction will result in an increase in the dividend premium in a positive direction as well. However, it should be assessed that the strength of this relationship is at the lower bound.

5. Conclusions, Proposals, Recommendations

Dividend policy, and the research conducted in connection with it, occupy a lot of space in literature studies. As a result, it is possible to identify and define a wide variety of factors that affect its existence and application in companies. Macroeconomic and microeconomic factors influence the development of dividend policy and the way the company itself operates.

The third group, which is the most difficult to measure and quite unpredictable, is the group of behavioral factors. This group can primarily include the behavior of individual investors, whose reactions and decisions can significantly affect the price of a company's shares. In the last dozen years alone, authors of studies on factors influencing dividend payment decisions have proposed as many as 85 different variables.

These may include, among others: the life cycle of the company, available investment projects, the amount of cash flow, the availability of cash, the stability of earnings, the need to maintain control of the entity, management's aversion to increasing debt, restrictions arising from the issuance of preferred stock and bonds issued, the return on equity, the ratio of the return on invested capital to the weighted average cost of capital, the capital structure, planned share repurchases, investors' preferences regarding dividends received, the economic situation of the country, the dynamics of gross domestic product, investment or exports and imports, the legal system and legal restrictions and the related so-called 'inviolability of capital' principle. principle of inviolability of capital, inflation and the ratio of dividend taxation to capital gains taxation (Kowerski, 2011).

In view of this, it becomes obvious that it is impossible to study the impact of all the determinants of dividend policy - primarily because of the need for detailed studies with a representative research sample.

The study of the catering theory in dividend policy in the Polish listed companies market allowed us to examine two relationships: dividend premium and the percentage of companies paying dividends, and dividend premium and WIG index returns. In the first case, the Pearson coefficient reached a positive value and therefore the hypothesis should be accepted.

Similarly, in the second case, the Pearson coefficient also reached a positive value so hypothesis H2 was confirmed. In view of the research conducted, it should be concluded that the catering theory is justified for the Polish listed company market. This is a continuation of research already conducted in this area, but for an earlier time horizon, while maintaining the same research methodology.

It is suggested to continue further research in this area on the Polish market and to make a comparative analysis for European markets, where the assumptions of the catering theory have not always been confirmed. Dividend policy and related theories remain of interest primarily in behavioural finance.

This is important because the psychological aspect of holding dividends as a form of additional remuneration for investors seems to be of great importance in investors' understanding of dividend policy.

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