## DIVIDEND POLICY AND THE NATURE OF CASH FLOWS OF SELECTED COMPANIES LISTED ON THE FRANKFURT STOCK EXCHANGE

#### Anna Dada

University of Opole, Opole, Poland e-mail: anna.dada@uni.opole.pl

ORCID: 0000-0003-2253-1868

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*Quote as:* Dada, A. (2021). Dividend policy and the nature of cash flows of selected companies listed on the Frankfurt Stock Exchange. *Financial Sciences*, *26*(2).

DOI: 10.15611/fins.2021.2.03 JEL Classification: G30, G35

**Abstract:** The main purpose of the article was to investigate whether there are joint-stock companies listed on the FSE between 2000-2017 that paid regular dividends. The sample was divided into dividend companies and other companies. A subsidiary objective was to compare the dividend companies and other companies concerning the direction of their cash flows (positive/negative). Based on the conducted research, it should be stated that dividend companies had on average higher DPS than other companies. The conducted research shows that the percentage of dividend companies in variants 1-4 among the models of eight cases based on selected information on cash flows is greater than that of other companies. The application value is related to recommendations regarding the attractiveness of investing in dividend companies. These conclusions may also be useful for companies listed on other exchanges, e.g. the GPW. The dividend payment policy should be supported by rational cash flow management.

Keywords: dividend policy, cash flow, Frankfurt Stock Exchange.

#### 1. Introduction

Nowadays, one of the main objectives of a company is to maximise shareholder value<sup>1</sup>. The management of a company can contribute to the achievement of this

<sup>&</sup>lt;sup>1</sup> The objectives of other stakeholders in the company (e.g. employees, creditors) should also be taken into account in a balanced way. Maximising the value created for shareholders is not possible without respecting the interests of other groups; conversely, the welfare of other groups increases when the ultimate goal of company management is to create value for shareholders (Cwynar & Cwynar, 2007, p. 4). Looking at this issue on a macro scale, it is easy to see the correlation between shareholders

objective if they can manage resources – in particular cash resources – appropriately. The most important task of the company is to conduct and develop its activities in such a way as to contribute to increasing the company's cash resources, i.e. free equity capital (Dyktus, Gaertner & Malik, 2017, p. 104).

This article refers to the characteristics of the dividend policy of joint-stock companies listed on the Frankfurt Stock Exchange between 2000 and 2017. The author checked whether there were dividend companies listed on the FSE. Joint-stock companies who paid out dividends without any interruption (21 payments during the period of 2000-2017) were defined as dividend companies. Thus, the study compares dividend companies with other companies.

Additionally, it is worth exploring dividend payments according to the direction of cash flows of companies listed on the Frankfurt Stock Exchange (Frankfurter Wertpapierbörse). A subsidiary goal was to compare the dividend companies and other companies concerning the direction of the cash flows. Dividend payments and cash flows are important determinants of corporate financial strategy. Dividend payments depend primarily on the decision concerning the distribution of net income. However, in economic reality, there may be a significant difference between net profit and its cash equivalent. In that case, the main constraint on the amount of dividend payments is the availability of cash. The positive value of cash flows obtained by the company should positively impact on decisions to maintain dividend payments. Companies with negative cash flows may be averse to dividend payments for fear of a shortage of cash at the payment date.

The remainder of the study is organised as follows: the next section reviews the literature, motivates the study and presents hypotheses. Section 3 describes the data and methodology. Section 4 conducts an empirical analysis and presents the results. Section 5 concludes the paper and provides recommendations for future research.

### 2. Literature review and development of the hypotheses

Dividend payout policies are present in many theoretical considerations. These are often concepts, in which dividend payments are analysed in the context of the value of the company. Adopting the corporate finance and financial markets perspective emphasises the importance of investor relations as a 'financial information filter', whose main task is to present the clearest picture of the company's financial situation and its prospects for development (Łukasik, 2013, p. 14). Therefore, in creating the company's image, the corporate governance relating to the adopted and applied dividend policy is essential in investor relations, which focus on the company's relations with investors, among whom shareholders, i.e. co-owners, play a special role (Dziawgo, 2011, p. 15). Some researchers argue that dividend payments are

becoming richer and the wealth of entire societies; after all, maximising the wealth of shareholders involves seeking the most profitable applications for their capital (Cwynar & Cwynar, 2007, p. 15).

a source of the positive valuation of the company in the market. According to this trend, an increase in payouts results in an increase in the company's share price (Gordon, 1959, p. 101). Other researchers, however, present different views. They claim that companies that do not pay dividends are valued higher on the market due to the tax preferences of shareholders (Litzenberger & Ramaswamy, 1982, p. 430). This approach to the dividend policy is significant in countries with differences in taxation rates for dividends and capital gains. Yin and Nie (2021) in turn, stated that for companies with insufficient cash flows, dividends provide a negative signal of their value. They propose the rule, which significantly interferes with the positive signalling effect of dividends in Chinese stock markets. Some researchers ruled out the possibility of dividends affecting company value (e.g. Miller & Modigliani, 1961; Black & Scholes, 1974). They initiated further research related to the search for relations between dividend policy and other corporate financial decisions. Some authors focused on the overriding importance of the information function of dividends, following from the belief that any change in the level of dividends paid, signals the future financial position of the company (Miller & Rock, 1985, p. 1039). Many researchers explain dividend payments in terms of behavioural factors, including the so-called clientele effect, according to which dividend policy should be aligned with the preferences of existing shareholders in terms of tax burden and transaction costs (e.g. Allen, Bernardo & Welch, 2000; Dhaliwal, Erickson & Trezevant, 1999; Elton & Gruber, 1970). The existence of the clientele effect, on the other hand, was negated by Modigliani and Miller (1961) who stated that one client would be as good as another. The behavioural determinants of dividend payments were also considered by the catering theory, according to which companies should make payout decisions depending on the market valuation of the dividend premium (e.g. Baker & Wurgler, 2004; Konieczka & Szyszka, 2013). According to this concept, dividends should only be paid by those companies whose shares are valued higher (at a premium), compared to the share valuation of companies not making distributions. However, some researchers argued that dividend payments are significantly affected by information asymmetry, which results in limited shareholder confidence in management (Jensen, Meckling, 1976, p. 6). They perceive that dividend payments reduce free cash flow, thus motivating managers to improve their investment strategy (concepts based on agency theory and free cash flow theory). Moreover, dividends may be determined by the need to distribute the firm's free cash flow to avoid investing in low-return projects (Brycz & Pauka, 2013, p. 50).

The concepts that have emerged so far have not clearly defined the determinants of dividend payments. Some trends are complementary, while others rely on the falsification of selected concepts. The issue of the relation between cash flows and dividend payments was the subject of only a few academic studies, although for many companies dividend payments are a relatively important item when it comes to cash outflows. Companies listed on the stock exchange often do not have a dividend policy in place, but nevertheless systematically share part of the profit with shareholders (Jabłoński, 2021, p. 3).

The research conducted by Rochmah and Ardianto (2020), showed that free cash flow tends to increase the dividend because the more cash the company owns, the greater its ability to distribute dividends to its shareholders, however they only focus on manufacturing companies registered in Indonesia. Agrawal and Jayaraman (1994) believed that dividend payments determine the amount of cash flow to reduce agency costs. Oded (2020) suggested that dividends eliminate the agency costs of free cash by forcing cash out, but could result in underinvestment if the cash paid out is later needed for company operations. In addition, the free cash flow problem severity seems to be dependent on the specifics of the company. Wu, Ni, and Huang (2020) mentioned that family-controlled firms pay fewer cash dividends than non-family-controlled firms, which differs from moderating proxy problems by increasing dividend payouts due to reduced free cash flow.

In contrast, different determinants were present by Deng, Li, Liao, and Wu (2012), who indicated that in the presence of low and moderate cash flow uncertainty, enterprises do not abandon dividend payments and do not reduce investment. They found that companies with uncertain cash flow finance cash shortages by increasing debt, while Charitou and Vafeas (1998) argued that cash flow plays an important role in determining dividend policy, and stated that dividend payouts depend on cash flow when a company obtains low cash flow values and when it makes significant investments. The researchers found that the relation between operating cash flow and changes in dividends is particularly noticeable for companies with a positive operating profit and negative operating cash flow. They indicated that operating cash flow is an important factor in determining dividend payments when it is relatively low (and therefore acts as a constraint on a company's ability to make payments). Michaely, Rossi, and Weber (2021, p. 425) concluded that the riskiness of future cash flows is a central determinant of companies' payout policies. Research conducted by Chay and Suh (2008) showed that cash flow uncertainty is a major determinant affecting the amount and probability of dividend payments in companies. The researchers found that companies with relatively predictable cash flows were more likely to pay dividends than those with relatively unpredictable cash flows. They also found that firms with high cash flow uncertainty may avoid paying dividends because of low dividend flexibility (sticky dividends). Some researchers made conclusions based on dividend yield (dividend per share/year-end market price of shares). It is worth noting, however, that the dividend yield does not always reflect the actual financial situation of a company. It may be subject to significant fluctuations in particular years, even if a constant dividend per share ratio was established because the factors shaping the denominator of the equation are diverse and quite variable (Uchman, 2002, p. 17). In addition, it may have different informational value for individual investors - depending on the moment when they acquire shares. Among the companies that regularly pay out dividends, are those that conduct a constant and growing dividend per share policy. This policy is particularly attractive for long-term investors who expect both regular financial benefits in the form of dividends and capital gains in the future (Pieloch-Babiarz, 2020, p. 76).

The studies conducted so far do not fully explain the relations between the amount and volatility of cash flows and payment of dividends. For this reason, further research on the financial decisions of companies in this respect should be conducted. This paper aimed to evaluate if the public companies listed on the Frankfurt Stock Exchange pay dividends regularly. A subsidiary goal was to compare the dividend companies and other companies concerning the direction of their cash flows. Based on the observed research gap, the following hypotheses were formulated:

H1: There are joint-stock companies listed on the FWB that paid dividends without any interruption between 2000 and 2017.

H2: Dividend companies have on average higher DPS<sup>2</sup> for the years 2000-2017 than other companies.

H3: The percentage of dividend companies in variants 1-4 among models of eight cases based on selected information on cash flows is greater than the percentage of other companies.

It is innovative to analyse dividend payments in the context of the model of eight cases based on selected information on cash flows, taking into consideration the nature of the enterprise, operating cash flows, investing cash flows, and financing cash flows (positive, negative) (see Table 1). An extensive description of all cases can be found, among others in: (Bławat, Drajska, Figura, Gawryca, Korol & Prusak 2017, p. 252; Olszewski, 1993, p. 36; Śnieżek, 2008, p. 284).

Type of cash flows		Cases of the company's situation							
		2	3	4	5	6	7	8	
Net cash flows from operating activities	+	+	+	+	-	-	_	-	
Net cash flows from investing activities		-	+	-	+	-	+	-	
Net cash flows from financing activities	+	-	_	+	+	+	_	-	

Table 1. Model of eight cases based on selected information on cash flows

+ means a positive balance of cash flows (inflows > outflows)

- means a negative balance of cash flows (outflows > inflows)

Source: own research based on (Olszewski, 1993, p. 35).

The first variant was assessed as positive. In subsequent variants, the information about the change in cash was important in the analysis – first, it should be observed whether the total value of cash flows from the three types of activity (change in cash) was negative or positive. In variants 5-8, the net cash flow from operating activities

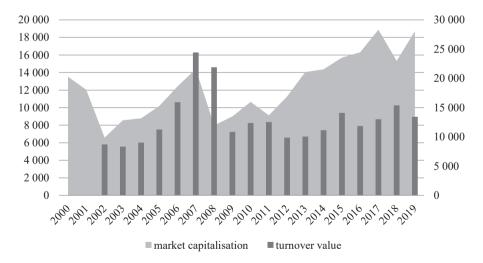
<sup>2</sup> DPS is the dividend per share:  $DPS = \frac{dividend for the year t}{the number of shares}$ 

was negative. For investors, variants 5-8 carried a higher risk than variants 1-4. It was difficult to determine (variants 5-8) whether the company would be able to meet the expectations of the investors in the future.

#### 3. Sample selection and research methodology

The research sample covered joint-stock companies listed on the Frankfurt Stock Exchange (Frankfurter Wertpapierbörse, FWB) between 2000 and 2017. The choice of the stock exchange follows from the need to analyse the examined relations in a sufficiently developed capital market where companies have the opportunity to shape a long-term dividend policy. The Frankfurt Stock Exchange is one of the oldest and largest stock exchanges in the world and the largest of the seven stock exchanges in Germany. It is one of the world's largest trading centres for securities, with a share in turnover of around 90 percent<sup>3</sup>. Companies operating in this economy may therefore already have developed a systematic and long-term dividend policy. In addition, recent data show that the most traded type of securities on the Frankfurt Stock Exchange is shares<sup>4</sup>.

The turnover on the FWB stock market and the capitalisation of the listed companies in the period 2000-2019 are presented in Figure 1<sup>5</sup>. It is worth noting that the turnover and capitalisation of the FWB coincided with the global economic situation.



**Fig. 1.** Total Equity Market – market capitalisation (left-hand axis) and turnover value on the stock market FSE (right-hand axis) in billions of Euros

Source: own research.

<sup>&</sup>lt;sup>3</sup> https://www.deutsche-boerse.com/dbg-en/our-company/frankfurt-stock-exchange (31.12.2021).

<sup>&</sup>lt;sup>4</sup> https://www.boerse-frankfurt.de/wissen/wertpapiere/aktien/anlageklasse-aktien (09.08.2020).

<sup>&</sup>lt;sup>5</sup> There are no data on the value of turnover for 2000-2001 in the world-exchanges database.

Despite such significant interest in the Frankfurt Stock Exchange among many capital market players, the dividend policy of companies listed there was addressed in very few studies, it is therefore worth considering.

The research was conducted for the period 2000-2017. The new segmentation of the markets on the Frankfurt Stock Exchange took effect on 1 January 2003<sup>6</sup>, but companies wishing to join the *Prime Standard* segment are required to have financial reports for at least the previous three years. The research was conducted from 2000 onwards, to collect two equal nine-year sub-periods (before and after the crisis). Thus, the analysis was carried out from 2000 to 2017, as well as from 2000 to 2008 and 2009 to 2017. The verification of the analysed factors in the sub-periods was carried out to check the observed relationships both in the years before the outbreak of the global financial crisis, and the years after its peak. The research sample was also subjected to the following classification: dividend companies and other companies. There are previous studies using this approach e.g. (Baker & Wurgler, 2004; Dhaliwal, Erickson & Trezevant, 1999; Jabłoński, 2014; Konieczka & Szyszka, 2013).

At the time of deciding the amount of the payment, the value of the achieved net cash flow may be of significant importance, as the companies had limited possibilities of deferring the payment for a long time. As for the possibility of postponing the payment, in Germany until the end of 2016 the dividend had to be paid on the day after the end of the General Meeting of Shareholders. In 2017, the regulations in this area were changed. According to §58 of the German Act on Joint Stock Companies (Aktiengesetz), the company may pay dividends no sooner than on the third business day following the resolution of the General Meeting of Shareholders. These changes made it difficult to compare the data after 2017 with previous years, therefore the analysis had to be completed in 2017.

The research was carried out for all (140) companies belonging to the regulated market in the *Prime Standard* segment, whose financial statements were available for the analysed period. These companies were listed throughout the period, those that joined the quotes at that time or were removed from the quotes (delisted) were not included.

The selection of companies from the *Prime Standard* segment was made according to the applicable conditions concerning the transparency of information shared with investors. Companies in the *General Standard* segment were also participants in the regulated market, however they had to meet lower requirements in terms of transparency of information provided to investors. They were not obliged to: publish and continuously update a calendar with key financial information; hold analyst meetings to announce annual financial statements; or publish quarterly reports.

<sup>&</sup>lt;sup>6</sup> The market division included three segments: *Prime Standard, General Standard,* and *Entry Standard* (in March 2017 the *Entry Standard* segment was replaced by *Scale*).

Yet, these obligations do apply to companies in the *Prime Standard*<sup>7</sup> segment. An additional requirement for participation in this segment is the simultaneous fulfilment of disclosure obligations in German and English. The restrictive participation requirements are aimed at raising capital not only from domestic entities but also from investors from outside Germany. The financial strategies of companies in the *Prime Standard segment* are therefore evaluated by investors from all over the world. These companies are obliged to disclose quarterly financial reports. As a result, shareholders can update their expectations regarding the payment of dividends based on the company's periodically disclosed financial situation. Thus it could be assumed that the amount of cash flows is known at the time of adopting the resolution to distribute profits.

It is also worth mentioning that very few studies have so far been devoted to the dividend policy of companies belonging to the Frankfurt Stock Exchange. The availability of data may be one of the reasons. For this study, one-dimensional data were collected covering individual items of the companies' financial statements. All ratios used were calculated independently based on one-dimensional financial statements of individual companies. Individual values from the financial statements of the analysed companies were obtained from the Thomson Reuters database.

The paper proposed to consider the dividend per share (dividend for year t / number of shares) as a measure of dividend payouts. Previous studies used different values to measure dividend payments. Deng, Li, Liao, and Wu (2012) used dividend per share (DPS). Agrawal and Jayaraman (1994) applied two measures – first, the dividend pay-out ratio, while as an alternative measure they used the dividend yield (dividend per share / year-end market price of shares). The measures applied in this case did not affect the results. It is worth noting, however, that the dividend yield does not always reflect the actual financial situation of a company, which may be subject to significant fluctuations in particular years, even if a constant dividend per share ratio was established, because the factors shaping the denominator of the equation are diverse and quite variable (Uchman, 2002, p. 17). In addition, it may have different informational value for individual investors, depending on the moment when they acquire shares.

The inference was supported by comparing means for two populations (1 - dividend companies, 2 - other companies). This test is used when the number of samples in each group is different, and the variance of the two data sets is also different. Hypothesis tests and confidence intervals for two means can answer research questions about two populations<sup>8</sup>. The sample statistic is the difference between the means of the two independent samples:

<sup>&</sup>lt;sup>7</sup> The author is aware that companies in the *Prime Standard* segment certainly had fewer liquidity problems than those in other segments. However, some of them were not achieving a consistent and high level of cash flows, while some had negative cash flows already at operating level.

<sup>&</sup>lt;sup>8</sup> https://www.geo.fu-berlin.de/en/v/soga/Basics-of-statistics/Hypothesis-Tests/Hypothesis-Tests-for-Two-Population-Means/index.html (31.12.2021).

 $\bar{x} 1 - \bar{x} 2$ 

Furthermore, the standard deviation of all possible differences between the two sample means equalled the square root of the sum of the population variances, each divided by the corresponding sample size<sup>9</sup>. The following formula was be used:

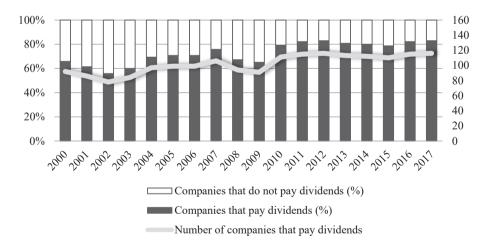
$$\mu = \frac{\bar{x}\,1 - \bar{x}\,2}{\sqrt{\frac{(S1)^2}{n1} + \frac{(S2)^2}{n2}}}$$

where:  $\overline{x}$  – mean, n – sample size, S – standard deviation.

The null hypothesis for the test is that the means are equal (H0 =  $\mu$ 1 =  $\mu$ 2), and the alternate hypothesis for the test is that the means are not equal (H1 =  $\mu$ 1 >  $\mu$ 2).

# 4. Dividend policy and the nature (positive/negative) of cash flows – research results

The literature suggests that German companies have a very flexible dividend policy. Goergen, Renneboog & Silva suggest that the dividend policy in Germany is more flexible than in the UK and the US (2005, p. 19). However, in the selected research sample (Prime Standard), it was noted that in each analysed year, dividends were paid out by more than half of the companies (Figure 2).



**Fig. 2.** Percentage of companies paying dividends in all analysed companies (left-hand axis) and the number of companies paying dividends in 2000-2017 (right-hand axis)

Source: own research.

<sup>&</sup>lt;sup>9</sup> https://www.geo.fu-berlin.de/en/v/soga/Basics-of-statistics/Hypothesis-Tests/Hypothesis-Tests-for-Two-Population-Means/index.html (31.12.2021).

In the analysed period, the highest increase in companies redistributing profit to owners was recorded in 2010 (dividend for 2009), i.e. after the economy rebounded from the lowest point of the global financial crisis. Since 2010, stabilisation of decisions regarding the amount of profits transferred to owners was also noticeable. The percentage of companies that made payouts remained relatively stable (oscillated around 70%). Significant volatility can be observed in terms of the payout value – for the dividend payout ratio (coefficient of variation = 5.09) and DPS (coefficient of variation = 1.67). It is worth checking if any joint–stock companies paid out dividends without any interruption between 2000 and 2017 (dividend companies).

The selected sample included 46 dividend companies (i.e. 33% of the total research sample). Table 2 presents dividend companies according to sector classification. Most of the dividend companies belonged to the Industrial sector, more than on the Warsaw Stock Exchange. For example, there were only 13 dividend companies on the Warsaw Stock Exchange in 2009-2018 (Jabłoński, 2018, p. 62). Similarly, in 2005-2017, there were also 13 dividend companies on the Warsaw Stock Exchange (Dada, 2018, p. 80). In future, it would be worth comparing the FSE and the WSE in non-absolute terms of values, i.e. what percentage of listed companies were dividend companies, and presenting this topic more broadly in the future.

Sector	Number of dividend companies	Sector	Number of dividend companies
Media	1	Banks	1
Insurance	2	Pharma & Healthcare	7
Industrial	9	Retail	4
Food	1	Software	1
Financial services	1	Technology	1
Consumer	7	Transportation	2
Chemicals	4	Utilities	2
Basic resources	1	Automobile	2

Table 2. Number of dividend companies in sectors

Source: own research.

Figure 3 (dividend companies) and Figure 4 (other companies) show the average value of DPS in the period 2000-2017. Each year the dividend companies paid out on average higher DPS than other companies.

The average DPS value for dividend companies was 1.09 EUR, and for other companies, 0.50 EUR. Based on the F test, the homogeneity of variance could be rejected. Additionally, the comparing means for two populations allowed for the rejection of H0 at the significance level of 0.05. This confirms that dividend companies pay statistically higher (DPS) than other companies.

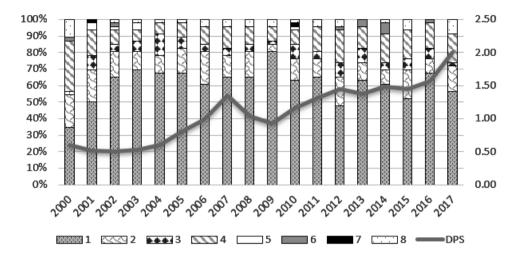


Fig. 3. Models of eight cases based on selected information on cash flows (left-hand axis) and DPS (right-hand axis) of dividend companies

Source: own research.

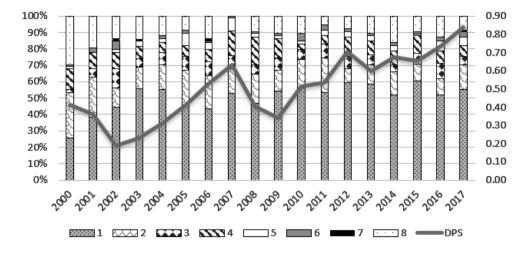


Fig. 4. Models of eight cases based on selected information on cash flows (LHS) and DPS (RHS) of other companies

Source: own research.

Variants 1-4 covered 94% of dividend companies (both for the years 2000-2017, as well as 2000-2008 and 2009-2017). On the other hand, when it comes to other companies, 83% belonged to variants 1-4 (2000-2017), while in 2000-2008 it was 81%, and in 2009-2017 it was 84%.

Hence the percentage of dividend companies in variants 1-4 among the models of the eight cases based on selected information on cash flows was greater than the percentage of other companies. Since the results of the study did not allow the rejection of hypotheses, it was assumed that for the entire research period all the hypotheses were true. Dividend companies provided shareholders with greater dividends than other companies (measured by the DPS ratio). There were companies listed on the Frankfurt Stock Exchange that paid dividends annually in the years 2000-2017. These were companies with a relatively low risk of financial liquidity compared to other companies.

#### 5. Conclusion

The main purpose of the article was to investigate whether there are joint-stock companies listed on the Frankfurt Stock Exchange between 2000-2017 that paid regular dividends. It was concluded that there were joint-stock companies listed on the FWB that paid dividends without any interruption between 2000 and 2017.

Basic shareholders' expectations, especially in terms of the required rate of return, are an important criterion taken into account in company decisions. When deciding how much cash to give to shareholders, the management responsible for financial issues must bear in mind that the primary goal of the company is to maximise shareholder value (Brigham & Houston, 2005, p. 581). In the study, dividend payments were analysed by dividing the research sample into dividend companies and other companies. The conducted research of companies (dividend companies and other joint-stock companies) listed on the Frankfurt Stock Exchange between 2000 and 2017, allowed for indicating the different characteristics of both groups. First of all, dividend companies had a higher average DPS than other companies. Each year the dividend companies paid out on average a higher DPS than other companies. Additionally, they can also boast a higher level of financial security. The percentage of dividend companies in variants 1-4 among the models of the eight cases based on selected information on cash flows was greater than the percentage of other companies. These results are consistent with informational dividend content, the signalling theory, and the clientele effect. Thus, the adopted research hypotheses were verified. This is consistent with research conducted by Charitou and Vafeas (1998); Chay and Suh (2008); Michaely, Rossi and Weber (2021); Rochmah and Ardianto (2020). On the other hand, the results do not lend strong support to the hypothesis that agency conflicts affect payout policy. Therefore the results are questionable according to the hypotheses of: Agrawal and Jayaraman (1994); Deng, Li, Liao, and Wu (2013); Oded (2020).

These conclusions can be used as recommendations for individual or institutional investors investing capital in dividend companies listed on the Frankfurt Stock Exchange. Therefore, it is possible to offer recommendations regarding the attractiveness of investing in dividend companies listed on the Frankfurt Stock Exchange. Higher dividends will increase the efficiency of such investment. Investors should therefore consider such dividend companies in their investment portfolios. These conclusions may also be useful for companies listed on other exchanges, e.g. the Warsaw Stock Exchange. Companies that want to pay dividends without interruption should pay attention not only to accrual but also cash profit. The dividend payment policy should be supported by rational cash flow management.

The cash flow analysis presented in the article could be further extended by a change in the cash balance, which would increase the number of variants from eight model cases to fourteen (the first case described can be accompanied only by an increase in the cash balance, while the eighth case only by a decrease in the cash balance). In addition, it was noted that the analysis can be further extended to include the level of (positive/negative) net profit, which increases the number of cases to twenty-eight. That is of particular importance in long-term analyses. In the long term, profitability and solvency are two conditions necessary for the proper functioning of an enterprise.

This article is a preliminary study and will be expanded to include other measures in the future. It is recommended to add more factors/variables illustrating the financial situation of the analysed companies (not only cash flows) such as net profit, capital structure, leverage, current ratio, free cash flow to equity, free cash flow to firm, and also variables linked to the characteristics of the company (e.g. size, age, sector, ownership structure).

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#### POLITYKA DYWIDEND A CHARAKTER PRZEPŁYWÓW PIENIĘŻNYCH WYBRANYCH SPÓŁEK NOTOWANYCH NA GIEŁDZIE PAPIERÓW WARTOŚCIOWYCH WE FRANKFURCIE

**Streszczenie:** Celem głównym artykułu było zbadanie, czy istnieją spółki akcyjne notowane na FSE w latach 2000-2017, wypłacające dywidendy regularnie. Próbę badawczą podzielono na spółki dywidendowe oraz pozostałe spółki. Celem pomocniczym było porównanie spółek dywidendowych i pozostałych spółek w odniesieniu do charakteru przepływów pieniężnych (dodatni/ujemny). Na podstawie przeprowadzonych badań należy stwierdzić, że spółki dywidendowe realizują średnio wyższą wartość DPS niż inne spółki. Z przeprowadzonych badań wynika, że udział spółek dywidendowych w wariantach 1-4 modeli opisujących sytuację przedsiębiorstwa ze względu na rodzaj działalności i charakter przepływów pieniężnych netto jest większy niż udział pozostałych spółek. Wartością dodaną są rekomendacje dotyczące atrakcyjności inwestowania w spółki dywidendowe. Wnioski mogą być również przydatne dla spółek notowanych na innych giełdach, m.in. GPW. Polityka dywidendy powinna być wspierana racjonalnym zarządzaniem przepływami pieniężnymi.

Słowa kluczowe: polityka dywidend, przepływy pieniężne, Giełda Papierów Wartościowych we Frankfurcie.