
Central European Economic Journal

Paweł Oleksy¹, Andrzej Zyguła²

The Effect of Ownership Structure on Dividend Policy and Shareholder Value: A Financialisation Perspective on Construction Companies in Poland³

¹ Cracow University of Economics, Department of Financial Markets, e-mail: oleksyp@uek.krakow.pl

² Cracow University of Economics, Department of Financial Markets, e-mail: zygulaa@uek.krakow.pl

³ The article is an effect of the project 'Financialization – New Trends and Directions of Development', international conference, conducted by the University of Information Technology and Management in Rzeszów with Narodowy Bank Polski under the scope of economic education programme.

Abstract: In the paper, we examine the impact of ownership structure on dividend policy and shareholder value in non-financial companies from construction sector in Poland. More specifically, by distinguishing between financial and non-financial shareholders, we verify the involvement of financial institutions in company ownership and how it translates into changes in major dividend and shareholder value indicators. Our results show that the presence of financial investors in the ownership structure has a positive impact on probability that the company will pay out dividends, what is symptomatic for financialisation. However, there is not enough evidence to support similar conclusion regarding shareholder value creation.

Keywords: ownership structure, dividend policy, shareholder value, financialisation.

JEL Codes: G32, G20, G19

Acknowledgements

We would like to thank to anonymous reviewers for valuable comments and suggestions. All remaining errors are our own. The publication was financed from resources allocated to the Faculty of Finance and Law of Cracow University of Economics as part of the grant to maintain research capacity.

1 Introduction

An increasing infiltration of financial sector (markets, instruments and institutions) into the real economy, escalating in last decades, has raised the need for thorough discussions and in-depth analyses of macroeconomic and microeconomic consequences of this phenomenon. According to the Sahay *et al.* (2015), there exists a kind of breakeven point beyond which the excessive role of finance starts to bring more negative than positive outcomes. This finding constitutes the obligation for researchers and financial supervision authorities to continuously monitor the tendencies toward financialisation at the firm, industry and economy level.

In case of non-financial corporate, the financialisation may manifest in prioritising financial than real investments, relative expansion of financial assets in comparison to tangible assets, increased number of financial operations such as interest payments, dividend payouts or buybacks, establishment of financial subsidiaries, introduction of incentives-based solutions (e.g. stock options) in managerial remuneration systems, short-termism rather than long-termism and growing uncertainty of performance estimates, amongst others (Orhangazi 2008). It is a consequence of senior management decisions aimed at meeting shareholders' requirements and expectations reflected in corporate objectives and predefined strategy. Thus, the stockholder type (individual, institutional, financial, family, state, widely held, etc.) and ownership structure may differentiate the company's behaviour and be considered as a fundamental factor determining its susceptibility to undergo financialisation.

Taking the microeconomic perspective, in this paper, we survey the effect of ownership structure on dividend policy and shareholder value of selected non-financial companies in Poland. More specifically, we examine the involvement of financial investors in ownership of non-financial companies and examine how it influences the dividend policy and determines the shareholder value creation. Construction industry has been chosen because it belongs to the traditional sectors of the economy and plays a significant role in creation of Gross Domestic Product (GDP). According to the Central Statistical Office of Poland, for the last two decades, a total construction and assembly production completed by construction entities in the contract system has levelled off at about 10% of GDP.

2 Literature review and hypotheses

The question how the ownership structure affects the company performance has long been the subject of intense scientific research. The problem is complex and multifaceted because it concerns the organisational, managerial, sociological, legal or financial issues. An abundant literature documents the role and extent of the ownership concentration and its impact on effective control execution under corporate governance rules and translation into firm performance or valuation (Shleifer and Vishny 1997; Crotty 2005; Bozec and Dia 2015; Gaur, Bathula and Singh 2015). The differences in shareholder protection regulations are possible explanation for discrepancies in concentration of ownership or voting rights at a firm-level between countries (La Porta *et al.* 1999). Typically, the US or the UK capital markets are characterised by the preponderance of widely held ownership structures, whilst continental European corporations tend to concentrate ownership and control. In Poland, for example, the average participation rate for the biggest shareholder reaches a level of approximately 40% (Urbanek 2011).

Taking into account the investor typology, Faccio and Lang (2002) indicate the family-controlled companies as the predominant type of ultimate ownership in the group of publicly traded firms in western European countries. Simultaneously, they demonstrated greater dispersion of ownership in case of corporates owned by financial entities. In contrast, Crotty (2002) indicate the financial institutions, which are responsible for the most trades on the stock exchanges, as principal shareholders in large US companies. Correspondingly, Murray and Nienhüser (2013) reveal the growing role of financial entities in ownership structure in the largest companies in the United States, Canada, Germany and Australia over past decades. This phenomenon creates the space for institutional activism that manifests in frequent interventions of financial shareholders in companies' activity via voting, discussions with management boards or exit operations (McCahery, Sauther and Starks 2016).

Such engagement of institutional investors in corporate activities is also reflected in applied dividend policy (Short, Zhang and Keasey 2002; Grinstein and Michaely 2005; Rubin and Smith 2009). The agency theory suggests that the conflict of interest between managers and shareholders may result from contradictory plans and preferences regarding the use of corpo-

rate profits (Jensen and Meckling 1976). Thus, outsider shareholders may prefer to restrict the insiders' access to free cash flows by striving to set higher dividend payments. Analysing French companies, Djebali and Belanes (2015) confirm that shareholder identity determines the size of dividends and companies dominated by institutional investors tend to distribute higher dividends as opposed to family-controlled firms. Complementarily, Firth *et al.* (2016) disaggregated the group of financial institutions and highlight the significant influence of mutual funds involved in Chinese corporations on higher dividend payouts. Huang and Paul (2017) revealed the clear preference of institutional entities to hold stocks of dividend-paying companies, which, however, differs depending on investor investment style and firms growth opportunities. Research on the Polish stock market provides supportive evidence that large companies listed on Warsaw Stock Exchange are more likely to pay dividends (Kowalewski *et al.* 2007), particularly when amongst shareholders are open-end pension funds (Uchman 2017).

All strategic and operational management decisions that are in some sense derived from the ownership structure and corporate governance rules ultimately translate into firm value. However, the results of studies examining the relationship between ownership structure and firm value are inconclusive and depend on which country or stakeholder type is being concerned. Some evidence links higher company valuation with greater ownership dispersion (Bednarek and Moszoro 2014), larger involvement of foreign and independent institutional investors (Ferreira and Matos 2008) or increase – to some level – in managerial ownership (Fahlenbrach and Stulz 2009). A deeper look into institutional ownership and distinguishing between banks and investment funds shows that being the principal shareholder, banking institutions have a negative impact and investment funds a positive impact on the firm value (Ruiz-Mallorqui and Santana-Martin 2011).

Therefore, based on market observation and results from previous studies on non-financial companies from continental European countries, we postulate the following hypotheses:

H1: the presence of financial investors in the ownership structure has a positive impact on the probability that the company will pay out dividends

H2: the presence of financial investors in the ownership structure has a positive impact on the shareholder value.

3 Dividend ratios and external measures of shareholder value

Several measures can be used to identify and evaluate the company's activity in the field of dividend policy. The most popular are typically the following three: dividend per share (DPS), dividend yield (DY) and dividend payout ratio (DPR) (Sierpińska and Jachna 2007; Szablewski 2008).

DPS ratio can be calculated as the relation of the declared amount of earnings, current and possibly from previous years, allocated to the number of shares outstanding, pursuant to a resolution of the general meeting of shareholders. Although this indicator does not say much about the investment performance, it is the basis for calculating many other relationships that determine the level of dividends and it can also be useful for analysing the long-term dividend policy.

The DY, expressed as the quotient of the cash dividend paid per share and its market price, indicates, therefore, the investment productivity. The higher the percentage value of this indicator, the greater the cash flow from the equity position investor receives. Specifically, when capital gains equal to zero, the ratio reflects the total return on investment for a stock.

The last of these measures, DPR, can be calculated by dividing DPS by earnings per share (EPS) ratio. In general, it indicates what fraction of the company's after-tax earnings is distributed as dividends to shareholders.

In turn, when assessing the shareholder value, internal and external measures can be used. Amongst the external measures are total shareholder return (TSR) and shareholder economic value added (SEVA) (Cwynar and Cwynar 2002).

TSR is a measure of overall financial benefits of shareholders resulting from the appreciation of a stock's market price and cash payments received during the holding period. It reflects a total return of a stock and is calculated according to the formula

$$TSR = \frac{(P_t - P_{t-1}) + W}{P_{t-1}} \times 100\% \quad (1)$$

where

P_{t-1} – the stock's market price at the beginning of investment period,

P_t – the stock's market price at the end of investment period,

W the cash payments to shareholders (usually dividends and also amounts from buyback transactions).

SEVA, also referred to as the excess return (ER) (Cwynař and Cwynař 2002) or the abnormal return (AR) (Cwynař and Cwynař 2004a; Sobotnik 2008), is an evolution of the TSR concept. In unitary terms, that is, as for one share, this measure can be represented in the form of the following equation (Cwynař and Cwynař 2004b):

$$SEVA(j) = (TSR_t - CE_t) \times P_{t-1} \quad (2)$$

where

$SEVA(j)_t$ – the unit value created for shareholders in year t,

TSR_t – the total shareholder return in year t,

CE_t (cost of equity) – the cost of equity in year t,

P_{t-1} – the stock's market price at the beginning of investment period.

Considering the components of the TSR and SEVA formulas, some doubts may arise regarding the stock price for a given day, which may or may not be distorted by economic, political or other external factors. Another question concerns the cash payments to shareholders, which, according to financial theory, can include dividends and share buybacks. Therefore, taking into account these considerations, in all calculations, in the article, it was assumed that $W = DPS$ of a company, which paid dividend in a given year, P_{t-1} is the open price at the first trading session in a given year, P_t is the close price at the last trading session in a given year.

4 Data and analysis

4.1 Ownership structure and dividend policy

The analysis covered the years 2004–2014 and all Polish companies of the construction sector that were listed on the Warsaw Stock Exchange (WSE) at the end of 2014. Next, the companies that debuted on the stock market in a given year were eliminated from the sample of that given year, as it was impossible to measure their annual TSR and annual SEVA. In addition, the companies that had incomplete financial data in a given year were eliminated that year (in 2014, there was no data available for MSX Resources/Mostostal Export, which made it impossible to calculate indicators used in further anal-

yses). As a result of these corrections, the final research sample consisted of 34 entities, which accounted for a total of 284 cases, including 92 dividend payouts (D). Tab. 1 provides a detailed breakdown of the size of the research sample over the years.

As shown in Tab. 1, in the year 2004, 29% of companies in the construction sector paid dividends. For the analysed years, the dividend payout tendency increased by 7 percentage points to 36% in 2014. It is worth noting that the average propensity to a dividend payout in the years 2004–2014 in the examined group of the companies of the construction sector was higher by 2 percentage points than the tendency on the WSE and amounted to 32% for the research sample and 30% for the WSE.

Moving on to the analysis of the influence of financial investors on dividends and the value for shareholders, three dummy variables were proposed:

- F_N – determined based on the share of voting rights of the principal shareholder at the shareholders' general meeting (GM), which assumes the value of 1, if in a given company in the year t the financial institution was such a shareholder, and the value of 0 in the opposite case.
- F_all_N – determined based on the share of voting rights of 'the largest shareholder' at the GM, which assumes the value of 1, if in a company in the year t such a shareholder comprised the total number of financial investors or single financial investor and the value of 0 in the opposite case.
- F-any_noF – determined based on the presence of a financial institution in the ownership structure, according to a vote share at the GM, which assumes the value of 1 if the company in the year t had a financial investor and the value of 0 in the opposite case.

In both cases, the data for each year was obtained from the Notoria Service database. Tab. 2 shows the general size breakdown as well as the average propensity to pay dividends according to the three accepted classifications.

As can be seen in Tab. 2, in each of the three divisions considered, the highest propensity to pay dividends was characteristic for the companies in which financial investors were involved. With some caution, it can, therefore, be argued that the presence of a financial investor in the ownership structure of the company could have contributed to the payment of dividends by that company.

Tab. 1. The size of the analysed research sample and the willingness to pay dividends in 2004–2014

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	total
Research sample	17	18	18	18	24	28	28	32	34	34	33	284
D	5	5	5	6	7	11	10	10	9	12	12	92
Willingness to pay D	0.29	0.28	0.28	0.33	0.29	0.39	0.36	0.31	0.26	0.35	0.36	0.32
Willingness at GPW	0.25	0.31	0.30	0.25	0.29	0.25	0.25	0.31	0.34	0.35	0.37	0.30

Source: Authors' own calculations based on the data from Notoria Service and Stock Exchange Annals from respective years.

Tab. 2. The size of a research sample and average willingness to pay out dividends according to three accepted classifications

	F_N		F-all_N		F-any_noF	
	F	N	F-all	N	F-any	noF
Total in 2004-2014	36	248	57	227	174	110
Dividend payouts	22	70	36	56	80	12
No dividends	14	178	21	171	94	98
Willingness to pay D	0.611	0.282	0.632	0.247	0.460	0.109

Source: Authors' own calculations based on the data from Notoria Service and Stock Exchange Annals from respective years.

The attempts have been made to verify if in the case of listed companies in the construction sector

- a. the presence of a financial investor in the shareholder structure of a given company has a positive effect on the probability that the company will pay out dividends,
- b. possessing a principal non-financial investor by a given company has a negative impact on the probability that the company will pay out the dividends.

On the basis of the empirical findings by Wyrobek (2016), which indicate that logistic regression performs best amongst the binary dividend payout models, we decided to use this method in our study. Conducting a logit analysis, it was initially assumed that the dependent variable is a binary variable, based on the DPS ratio, which assumes the value of 1 if the company paid the dividend in the year t and the value of 0 in the opposite case.

The independent regression variables are:

- a. the share of a principal financial investor (FIN) as a percentage of votes at the GM of shareholders is the total cumulative proportion of financial inves-

tors, who, at the end of the financial year t, occurred in the ownership structure of a given company,

- b. the share of a principal non-financial investor (N_FIN) as a percentage of votes at the GM of shareholders is the share of the largest, sole non-financial investor in the company, who, at the end of the accounting year t, was present in the ownership structure of the company.

In both cases, data for each year were obtained from the Notoria Service database. In addition, two control variables were included in the analysed models:

- a. The first variable is PROFIT. Easterbrook (1984) and Jensen (1986) expressed the opinion that more profitable companies usually pay dividends more often in order to control the intermediation costs resulting from the excess of free cash. In these analyses, following the other authors (e.g. Baba 2009), the return on operating assets has been calculated as the ratio of operating profit in year t-1 to the value of total assets in year t-1.
- b. The second variable is SIZE. Fama and French (2001) as well as Grullon, Michaely and Swaminathan

Tab. 3. Expected relationships between the probability of dividend payment and the characteristic features of the company

Variable	Formula	Expected correlation sign
FIN	Σ% of votes at the financial investors GM	Positive
N_FIN	% of votes at the largest sole non-financial investor GM (t-1)	Negative
PROFIT	Operating profit (t-1)/total assets (t-1)	Positive
SIZE	Natural logarithm of total assets (t-1)	Positive

Source: Authors' own analysis based on Fama and French (2002), Baba (2009).

Tab. 4. Logit models

Variable	Logit Model	M_1	M_2	M_3	M_4	M_5	M_6
Const	Parameter estimate	-1.339	-4.865	0.0721	-4.651	-0.775	4.636
	p-Value	0.0000***	0.0004***	0.7506	0.0006***	0.0233**	0.0000***
	Standard error	0.1847	1.3515	0.2268	1.3510	0.3400	0.0008
FIN	Parameter estimate	4.393	4.057			3.460	2.467
	p-Value	0.0000***	0.0001***			0.0007***	0.0312**
	Standard error	0.9073	0.9906			1.0198	1.1397
N_FIN	Parameter estimate			-2.418	-2.965	-1.282	-2.108
	p-Value			0.0000***	0.0000***	0.0584*	0.0074***
	Standard error			0.5951	0.6852	0.6748	0.7819
PROFIT	Parameter estimate	8.999		9.240		9.242	
	p-Value	0.0000***		0.0000***		0.0000***	
	Standard error	2.1625		2.1117		2.1536	
SIZE	Parameter estimate	0.272		0.383		0.330	
	p-Value	0.0129**		0.0005***		0.0038***	
	Standard error	0.1088		0.1099		0.1132	
Total loss		165.39	147.65	169.81	146.22	163.54	143.79
Pseudo R²		0.0641	0.1522	0.0394	0.1601	0.0689	0.1681
X²		26.94	62.43	18.11	65.29	30.63	70.14
p-Value for X²		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hosmer–Lemeshow test		21.58	6.04	13.13	19.75	9.42	11.80
p-Value for Hosmer–Lemeshow test		0.0014	0.6421	0.0688	0.0113	0.3075	0.1601

Note: * significant at 10%, ** significant at 5%, *** significant at 1%.

Source: Authors' own calculations based on the data from the Notoria Service database.

(2002) argued that companies paying dividends are mainly large, mature and possess small investment opportunities. In contrast to these companies, small, young companies with high growth opportunities rarely pay dividends. The analyses used the natural logarithm of the total asset value (t-1) as an indicator of the size of the company (Fama and French 2002).

Tab. 3 shows the hypothetical relationship between the discussed variables and the probability of dividend payout in the company.

All the above variables were then used to build logit models. Tab. 4 presents some of the estimated logit models.

The models presented in Tab. 4 use four explanatory variables. Estimation values of parameters for FIN variables are positive and statistically significant in each

Tab 5. Descriptive statistics for DY and DPR according to F-all_N and F-any_noF classification

	Mean	df	Standard deviation	Variance	Minimum	Maximum	Q25	Median	Q75
DY									
F-all_N	0	0.054	56	0.057	0.003	0.007	0.295	0.018	0.032
	1	0.030	36	0.026	0.001	0.003	0.116	0.012	0.021
F-any_noF	0	0.088	12	0.095	0.009	0.008	0.295	0.034	0.049
	1	0.039	80	0.034	0.001	0.003	0.157	0.015	0.024
DPR									
F-all_N	0	0.624	56	0.444	0.197	0.088	2.110	0.257	0.529
	1	0.483	36	0.327	0.107	0.051	1.279	0.238	0.412
F-any_noF	0	0.61	12	0.452	0.204	0.119	1.693	0.348	0.488
	1	0.56	80	0.401	0.161	0.051	2.110	0.252	0.474

Source: Authors' own calculations based on the Notoria Service data.

model, which means that the presence of financial investors in the shareholder structure increases the probability of the dividend payout by the company. Parameter estimates for the N_FIN variable are negative and also significant in all models, which means that the presence of a principal non-financial shareholder in the company reduces the probability that the company will make a dividend payment. Furthermore, the parameters estimated for PROFIT and SIZE control variables are statistically significant, and their directions are in line with the expectations. This means that dividends are more likely to be paid out in large and profitable companies. However, it should be mentioned here that not all logistic regression models are well calibrated. As indicated by the Hosmer-Lemeshow test statistics, three of six models (i.e. M_1, M_5 and M_6) provide quite good fit to the data.

Moving to further analyses of the relationship between financial and non-financial investors and dividends, the F_N classification has been omitted in subsequent calculations, because of the small number of cases in which the financial investor was the sole and largest shareholder in the company (only 36 cases). The descriptive statistics of the two remaining classifications for DY and DPR are presented in Tab. 5.

The breakdown in Tab. 5, irrespective of the classification, shows that companies in which the financial investor was present have offered lower DYS and were characterised by lower DPRs when compared to entities without any financial investors involved or those in

which non-financial investors outweighed all financial investors.

However, in order to obtain a more accurate picture of the differences between the two groups of shareholders, the analysis of variance (ANOVA) examined all the companies and the calculated DY and DPRs. The question was: Is there an impact of the classification factor on the value of the indicator? It was assumed that the observed variable comprises the DY and DPR annual values calculated for individual companies, and a classification factor, that is, non-measurable variable, will be the earlier division of entities into companies with financial and non-financial investors according to the two adopted classifications: F-all_N and F-any_noF.

In the null hypothesis, it has been assumed that the conditional values of a given indicator (DY or DPR) are the same in the two groups of the analysed companies. The results of the analysis are presented in Tab. 6.

The results presented in Tab. 6, regardless of the classification, reveal clearly that there is no statistically significant difference between the two groups of shareholders in regard to DPR. Yet, in the case of the DY indicator, regardless of the classification, the results of the calculations show that there is a statistically significant difference between the groups. In particular, it can be observed that companies with a financial investor offer lower dividend yields than companies with a principal non-financial investor. Taking into account the earlier analyses of propensity, it could be suggested that companies with a financial investor compensate this lower

Tab. 6. The analysis of variances of the examined DY and DPR variables

Indicator	Average value		SSB	df	MSB	SSE	df	MSE	F	p
	0	1								
DY										
F-all_N	0.054	0.030	0.013	1	0.013	0.204	90	0.002	5.59	0.020**
F-any_noF	0.088	0.039	0.025	1	0.025	0.191	90	0.002	11.72	0.001***
DPR										
F-all_N	0.624	0.483	0.432	1	0.432	14.561	90	0.162	2.67	0.106
F-any_noF	0.614	0.562	0.028	1	0.028	14.965	90	0.166	0.17	0.684

Note: * significant at 10%, ** significant at 5%, *** significant at 1%.

Source: Authors' own calculations based on the Notoria Service data.

profitability by a higher willingness to pay dividends, unlike companies with a non-financial investor, which are even more profitable (higher DY) but relatively seldom pay out dividends (lower propensity).

4.2 Ownership structure and shareholder value

As in the case of dividend policy, to examine the impact of financial or non-financial investors on shareholder value, the abovementioned two classifications, that is, F-all_N and F-any_noF, have been used. Descriptive statistics of these classifications in regard to the TSR and SEVA are presented in Tab. 7.

As presented in Table 7, the values of both measures do not allow for clear conclusions. On the basis of the median, it can be stated, irrespective of classification, that the companies with financial shareholders have a higher median of TSR ratio and a lower of SEVA ratio than the companies with non-financial investors, but the mean values of both indicators do not support such assertion.

However, in order to obtain a more accurate picture of the differences between the two groups of shareholders, the ANOVA has been used to examine if there is an impact of the classification factor on the annual value of the TSR and SEVA indicators calculated for all companies. In addition, a discriminant factor, that is, a non-measurable variable, is the earlier classification into the companies with financial and non-financial

investors, distinguishing two subsets of entities: F-all_N and F-any_noF.

In the null hypothesis, it has been postulated that the conditional values of a specific indicator (TSR or SEVA) are the same in the two analysed groups of entities. The results of the analysis are presented in Tab. 8.

These results clearly indicate that between the two analysed groups of companies, there is no statistically significant difference for TSR or SEVA ratios. It can be stated that the fact that the company has a financial or non-financial investor was not the factor having impact on TSR and SEVA ratios observed in the years 2004–2014 and, thus, the companies' shareholder values.

Bearing in mind, however, the previously conducted analysis of dividend policy and the conclusion that the presence of financial shareholders increases the probability of the dividend payout, the ANOVA of the shareholder value has once again been carried out, but limited to the financial investors only and differentiated in regard to the dividend payout or its lack.

As a result, like in previous studies, we expected to verify an impact of the classification factor on the value of the indicator. It has been assumed that

- the observed variable was the TSR and SEVA annual values calculated for each company,
- the classification factor, that is, a non-measurable variable was the dichotomic division of entities into: 1 – companies that paid out the dividends in a given year ($DPS > 0$) and 0 – companies that did not pay the dividends in a given year ($DPS = 0$).

Tab. 7. Descriptive statistics for TSR and SEVA according to F-all_N and F-any_noF classifications

	Mean	df	Standard deviation	Variance	Minimum	Maximum	Q25	Median	Q75
TSR									
F-all_N	0	0.189	227	1.00	1.01	-0.94	7.68	-0.39	0.00
	1	0.131	57	0.79	0.62	-0.93	3.95	-0.38	0.05
F-any_noF	0	0.173	110	1.031	1.063	-0.940	4.827	-0.46	-0.06
	1	0.180	174	0.923	0.851	-0.930	7.684	-0.36	0.05
SEVA									
F-all_N	0	-2.13	227	32.10	1030.55	-309.00	165.22	-3.00	-0.19
	1	-0.60	57	27.51	756.80	-78.55	85.16	-5.10	3.44
F-any_noF	0	-1.64	110	31.55	995.65	-309.00	65.68	-1.39	-0.17
	1	-1.93	174	31.06	964.51	-164.07	165.22	-5.75	0.49

Source: Authors' own calculations based on the Notoria Service data.

Tab. 8. The variance analysis of the examined TSR and SEVA variables

Indicator	Average value		SSB	df	MSB	SSE	df	MSE	F	p
	0	1								
TSR										
F-all_N	0.189	0.131	0.154	1	0.154	262.977	282	0.933	0.165	0.685
F-any_noF	0.173	0.180	0.004	1	0.004	263.127	282	0.933	0.004	0.948
SEVA										
F-all_N	-2.13	-0.60	106.3	1	106.3	275,285.1	282	976.2	0.11	0.742
F-any_noF	-1.64	-1.93	5.5	1	5.5	275,386.0	282	976.5	0.006	0.940

Note: * significant at 10%, ** significant at 5%, *** significant at 1%.

Source: Authors' own calculations based on the Notoria Service data.

Tab. 9. The variance analysis of the examined TSR and SEVA variables

Indicator	Average value		SSB	df	MSB	SSE	df	MSE	F	p
	0	1								
TSR										
F-all	-0.10	0.27	1.791	1	1.791	33.010	55	0.600	2.984	0.090*
F-any	0.16	0.21	0.109	1	0.109	147.171	172	0.856	0.128	0.721
SEVA										
F-all	-3.96	1.36	375.1	1	375.1	42,005.7	55	763.7	0.49	0.486
F-any	-2.3	-1.6	21.3	1	21.3	166,839.2	172	970.0	0.02	0.882

Note: * significant at 10%, ** significant at 5%, *** significant at 1%.

Source: Authors' own calculations based on the Notoria Service data.

In the null hypothesis, it has been assumed that the conditional values of a specific indicator (TSR or SEVA) are the same in the two analysed groups of entities.

The result of the analysis (Tab. 9) demonstrate that only in case of TSR ratio and classification taking all financial investors in the ownership structure as a principal shareholder, there is a statistically significant difference between the analysed groups of entities (and only at the significance level of $\alpha = 0.1$). It can, therefore, be presumed that in these companies, a dividend payout was a factor that affected the observed TSR ratio in the analysed period and, thus, the shareholder value.

In order to confirm the strength of the abovementioned impact, a regression analysis was finally conducted (see Tab. 10). First, the null hypothesis postulated that the sample of companies originates from such a general population where the TSR regression in relation to the dividend payout does not exist at all. This would mean that $\alpha_y = 0$ and $\beta_y = 0$. Alternative hypotheses are two tailed. The results confirm that, however, only at the declared significance level of $\alpha = 0.1$, the dividend payments impact on the TSR ratio in companies where the principal shareholder was a financial investor.

Tab. 10. Results of the dependent variable TSR regression

	b	Standard error	t(55)	p
const	-0.101	0.169	-0.599	0.5515
DPS (F-all)_1v0	0.367	0.213	1.727	0.0897*

R = 0.22684954; R² = 0.05146071; Corrected R² = 0.03421454
F(1,55) = 2.9839; p<0.08971; Standard estimation error: 0.77471

Note: * significant at 10%, ** significant at 5%, *** significant at 1%.
Source: Authors' own calculations based on the Notoria Service data.

5 Conclusions

Financial institutions play increasingly important role in the business activities of non-financial companies. Their engagement is not just limited to the traditional financial intermediation (provision of financial resources, payment settlements, etc.), but more often can be associated with actions undertaken within the shareholder

ownership and control. This activism alters the corporate behaviour and may translate into aggressive dividend policy or increased pressure on maximisation of shareholder value, what is symptomatic for financialisation.

The results of our research confirm that the presence of financial investors in the ownership structure has a positive impact on the probability of dividend payouts of specified non-financial corporates in Poland. However, there is not enough evidence to support a conclusion that in case of construction companies, financial investors contribute more to shareholder value creation (measured by TSR and SEVA ratios) than non-financial investors. Thus, our further research will extend the sample of analysed companies to the other sectors and value measures, as well additionally put emphasis on institutional activism as one of the main factors driving financialisation processes.

References

- [1] Baba, Naohiko. 2009. "Increased Presence Of Foreign Investors and Dividend Policy of Japanese Firms." *Pacific-Basin Finance Journal* 17: 163–174. <https://doi.org/10.1016/j.pacfin.2008.04.001>.
- [2] Bednarek, Ziemowit, and Marian Moszoro. 2014. "The Arrow-Lind Theorem Revisited: Ownership Concentration and Valuation." *Applied Financial Economics* 24 (4–6): 357–375. <https://doi.org/10.1080/09603107.2013.877569>.
- [3] Bozec, Richard, and Mohamed Dia. 2015. "Governance Practices and Firm Performance: Does Shareholders' Proximity to Management Matter?" *International Journal of Disclosure & Governance* 12 (3): 185–209. <https://doi.org/10.1057/jdg.2014.3>.
- [4] Crotty, James. 2002. "The Effects of Increased Product Market Competition and Changes in Financial Markets on the Performance of Nonfinancial Corporations in the Neoliberal Era." *Political Economy Research Institute Working Paper* No. 44.
- [5] Crotty, James. 2005. "The Neoliberal Paradox: The Impact of Destructive Product Market Competition and 'Modern' Financial Markets on Nonfinancial Corporation Performance in the Neoliberal Era." In: *Financialization and the World Economy*, ed. Gerald Epstein, 77–110. Northampton: Edward Elgar.
- [6] Cwynar, Andrzej, and Wiktor Cwynar. 2002. *Zarządzanie wartością spółki kapitałowej*. Warszawa: Fundacja Rozwoju Rachunkowości w Polsce.
- [7] Cwynar, Andrzej, and Wiktor Cwynar. 2004a. "EVA a kreacja wartości dla akcjonariuszy." *Przegląd Organizacji* (1): 32–34.
- [8] Cwynar, Andrzej, and Wiktor Cwynar. 2004b. "Mierimiki kroowanej wartości spółki kapitałowej." In: Andrzej Szablewski, *Wycenia i zarządzanie wartością firmy*, ed. Rafał Tuzimek, 119–136. Warszawa: Poltext.

- [9] Djebali, Raoudha, and Amel Belanes. 2015. "On the Impact of Family Versus Institutional Blockholders on Dividend Policy." *Journal of Applied Business Research* 31(4): 1329–1342. <https://doi.org/10.19030/jabr.v31i4.9320>.
- [10] Easterbrook, Frank H. 1984. "Two Agency Cost Explanations of Dividends." *The American Economic Review* 74 (4): 650–659.
- [11] Faccio, Maria, and Larry H.P. Lang. 2002. "The Ultimate Ownership of Western European Corporations." *Journal of Financial Economics* 65 (3): 365–395. [https://doi.org/10.1016/S0304-405X\(02\)00146-0](https://doi.org/10.1016/S0304-405X(02)00146-0).
- [12] Fahlenbrach, Rüdiger, and René M. Stulz. 2009. "Managerial Ownership Dynamics and Firm Value." *Journal of Financial Economics* 92 (3): 342–361. <https://doi.org/10.1016/j.jfineco.2008.06.005>.
- [13] Fama, Eugene F., and Kenneth R. French. 2001. "Disappearing Dividends: Changing from Characteristics or Lower Propensity to Pay?" *Journal of Financial Economics* 60: 3–43. [https://doi.org/10.1016/S0304-405X\(01\)00038-1](https://doi.org/10.1016/S0304-405X(01)00038-1).
- [14] Fama, Eugene F., and Kenneth R. French. 2002. "Testing Trade-Off and Pecking Order Predictions About Dividends and Debt." *The Review of Financial Studies* 15 (1): 1–33.
- [15] Ferreira, Miguel A., and Pedro Matos. 2008. "The Colors of Investors' Money: The Role of Institutional Investors Around the World." *Journal of Financial Economics* 88 (2008): 499–533. <https://doi.org/10.1016/j.jfineco.2007.07.003>.
- [16] Firth, Michael, Gao, Jin, Shen Jianghua and Yuanyuan Zhang. 2016. "Institutional Stock Ownership and Firms' Cash Dividend Policies: Evidence from China." *Journal of Banking and Finance* 65: 91–107. <https://doi.org/10.1016/j.jbankfin.2016.01.009>.
- [17] Gaur Sanjaya S., Bathula Hanoku, and Deeksha Singh. 2015. "Ownership Concentration, Board Characteristics and Firm Performance: A Contingency Framework." *Management Decision* 53 (5): 911–931. <https://doi.org/10.1108/MD-08-2014-0519>.
- [18] Grinstein, Yaniv, and Roni Michaely. 2005. "Institutional Holdings and Payout Policy." *Journal of Finance* 60 (3): 1389–1426. <https://doi.org/10.1111/j.1540-6261.2005.00765.x>.
- [19] Grullon, Gustavo, Roni Michaely, and Bhaskaran Swaminathan. 2002. "Are Dividends Changes a Sign of Firm Maturity?" *Journal of Business* 75 (3): 387–424.
- [20] Huang, Wie, and Donna L. Paul. 2017. "Institutional Holdings, Investment Opportunities and Dividend Policy." *Quarterly Review of Economics & Finance* 64: 152–161. <https://doi.org/10.1016/j.qref.2016.06.008>.
- [21] Jensen, Michael C. 1986. "Agency Costs of Free-Cash-Flow, Corporate Finance, and Takeovers." *The American Economic Review* 76 (2): 323–329.
- [22] Jensen, Michael C., and William H. Meckling. 1976. "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure." *Journal of Financial Economics* 3 (4): 305–360.
- [23] Kowalewski Oskar, Ivan Stetsyuk, and Oleksandr Talavera. 2007. "Do Corporate Governance and Ownership Determine Dividend in Poland." *Bank i Kredyt* 38: 60–86.
- [24] La Porta, Rafael, Florencio Lopez-de-Silanez, and Andrei Shleifer. 1999. "Corporate ownership around the world." *Journal of Finance* 54 (2): 471–517.
- [25] McCahery, Joseph A., Zacharias Sautner, and Laura T. Starks. 2016. "Behind the Scenes: The Corporate Governance Preferences of Institutional Investors." *Journal of Finance* 71 (6): 2905–2932. <https://doi.org/10.1111/jofi.12393>.
- [26] Orhangazi Özgür. 2008. "Financialization and Capital Accumulation in the non-financial Corporate Sector: A Theoretical and Empirical Investigation on the US Economy: 1973–2003." *Cambridge Journal of Economics* 32: 863–886.
- [27] Peetz, David, Georgina Murray, and Werner Nienhäuser. 2013. "The New Structuring of Corporate Ownership." *Globalizations* 10 (5): 711–730. <https://doi.org/10.1080/14747312013.828965>.
- [28] Rubin, Amir, and Daniel R. Smith. 2009. "Institutional Ownership, Volatility and Dividends." *Journal of Banking and Finance* 33 (4): 627–639. <https://doi.org/10.1016/j.jbankfin.2008.11.008>.
- [29] Ruiz-Mallorquí, María Victoria and Domingo J. Santana-Martín. 2011. "Dominant Institutional Owners and Firm Value." *Journal of Banking and Finance* 35 (1): 118–129. <https://doi.org/10.1016/j.jbankfin.2010.07.020>.
- [30] Sahay, Ratna, Martin Čihák, Papa N'Diaye, Adolfo Barajas, Ran Bi, Diana Ayala, Yuan Gao, Annette Kyobe, Lam Nguyen, Christian Saborowski, Katsiaryna Svirydzenka, and Seyed Reza Yousefi. 2015. "Rethinking Financial Deepening: Stability and Growth in Emerging Markets." *IMF Staff Discussion Note* SDN/15/08.
- [31] Shleifer, Andrei, and Robert W. Vishny. 1997. "A Survey of Corporate Governance." *Journal of Finance* 52 (2): 737–783.
- [32] Short, Helen, Hao Zhang, and Kevin Keasey. 2002. "The link between dividend policy and institutional ownership." *Journal of Corporate Finance* 8 (2): 105–122.
- [33] Sierpińska, Maria, and Tomasz Jachna. 2007. *Metody podejmowania decyzji finansowych*. Warszawa: Wydawnictwo Naukowe PWN.
- [34] Sobotnik, Robert. 2008. "Calkowita stopa zwrotu spółek notowanych na GPW w Warszawie w latach 2002–2006." In: *Value Based Management, koncepcje, narzędzia, przykłady*, eds. Andrzej Szablewski, Krzysztof Pniewski, Bohdan Bartoszewicz, 673–691. Warszawa: Poltext.
- [35] Szablewski, Andrzej. 2008. "Zwrot gotówki do właścicieli: polityka dywidendy i wykupu akcji własnych." W: *Value Based Management, koncepcje, narzędzia, przykłady*, ed. Andrzej Szablewski, Krzysztof Pniewski, Bohdan Bartoszewicz, 417–448. Warszawa: Poltext.
- [36] Uchman, Jacek. 2017. "Wypłaty dywidend spółek giełdowych z udziałem kapitałowym otwartych funduszy emerytalnych." *Folia Oeconomica Acta Universitas Lodzensis* 3(329): 179–192.
- [37] Urbanek, Piotr. 2011. „Rynek kontroli nad korporacją w warunkach zamkniętego modelu kontroli (na przykładzie polskich spółek publicznych).” *Zeszyty Naukowe* 9: 215–237. Kraków: Polskie Towarzystwo Ekonomiczne.
- [38] Wyrobek, Joanna. 2016. *Determinanty polityki dywidend spółek giełdowych w Polsce*. Warszawa: Texter.