

Dividend policy and different dimensions of corporate governance¹

I.Khvostova, A.Novak, A.Larin, NRU Higher School of Economics

Abstract

We reconcile two competing views on the link between dividend payouts and corporate governance: the *outcome* and the *substitute* hypotheses. For the general setting, we find the proof of the *outcome* hypothesis, which states that companies with stronger governance should pay more dividends. This result holds for different dimensions of corporate governance capturing conflicts between managers and shareholders and minority-majority shareholders. At the same time, we show that the type of agency conflict and company financial characteristics may affect the relation between corporate governance and dividends. The effect is strong so that the *substitute* hypothesis explains the behavior of a substantial part of our sample. Depending on the type of agency conflict, the share of companies for which the *substitute* hypothesis is valid varies from 13% to 47%.

1. Introduction

Companies all over the world pay substantial dividends despite the “Tax argument”. Latest statistics show that average payout ratio of 40 thousands major companies from 139 countries exceed 50%². This phenomenon is partially explained by the classical “Bird in the Hand” theory. However, the theory was actively criticized since seminal paper of Bhattacharya (1979) [4]. In our paper, we test an agency theory that suggests the alternative explanation to the high dividend payments considering dividends as a way of transferring benefits to minority shareholders.

Fundamental idea behind the correlation of the investor protection level with dividend payouts lies in the field of agency problem between corporate insiders and outside shareholders (Easterbrook, 1984) [10]. The debate focuses on the use of free cash flow that can be either paid out to shareholders in the form of dividends or may be diverted by insiders for the personal use or committed to unprofitable projects that provide private benefits for them. Paying dividends helps to mitigate agency conflicts as it provokes more frequent monitoring by the capital markets as that new capital has to be raised more often. Dividends then can be considered as specific mechanisms to resolve the agency problem, it can act in combination with corporate governance best practices or as a substitution for them. Two opposite directions are tested in the literature since La Porta et.al (2000): the models of Outcome and Substitute - which imply positive and negative relationship between dividend payouts and corporate governance quality respectively [5, 15, 22].

Under the Outcome hypothesis, high dividends can be considered as an outcome of good corporate governance. With good corporate governance shareholders can force

¹ The publication was prepared within the framework of the Academic Fund Program at HSE University in 2019–2020 (grant №19-04-039) and within the framework of the Russian Academic Excellence Project “5-100”.

²Damodaran Online: Home Page for Aswath Damodaran. URL:

http://www.stern.nyu.edu/~adamodar/New_Home_Page/data.html (date: 02.02.2020)

companies to pay more for the several reasons: they can vote for directors who offer better dividend policy; they can provide higher level of corporate control, so leaving cash in hands of managers becomes less attractive as asset diversion becomes riskier and more expensive for the insiders. Thus, the more rights the minority shareholders have, and the better they are implemented in practice, the larger the dividends are paid by the company, all other things being equal. Under the Substitute model the dividends are a substitute for legal protection or good corporate governance. Stable high dividends are viewed as a guarantee for a minimum level of expropriation. Even in the absence of other guarantees from management, high dividends can help establishing a company's good reputation in the financial market and simplify the process of raising capital in the future. In countries with a low level of minority shareholders' rights protection of a company is obliged to pay dividends, thereby maintaining its reputation. In countries with a high level of shareholders' rights protection, this reputational mechanism is not so important, which means there is no need to pay dividends. La Porta et al. (2000) for the sample of 33 different countries confirm the positive relationship between dividends and the country level of investor protection. Mitton (2004) shows that outcome hypothesis works for the firm-level corporate governance as well [19]. Subsequent attempts of empirical investigation of the "outcome" and "substitute" hypotheses are associated with the use of different indicators for protecting the rights of shareholders and provide rather controversial results which are discussed later.

Another aspect of the corporate conflict, which is not well covered in this type of literature, is the conflict between minority and majority shareholders. In firms where ownership is concentrated, the risk of minority shareholders' expropriation comes more from the controlling shareholder's behavior than from managers. The basic idea about extracting free cash flow is that avoiding expropriation can also help in reducing the conflict. At the same time, dividends can serve majority shareholders' interests so it limits using payout as a mechanism of minority protection. Céline du Boys, for example, shows for French market that the type of agency conflict prevailing is important in explaining the dividend policy decisions [9]. At the same time some corporate governance practices are more focused on management and do not affect the conflict with majority shareholders.

We also develop an idea that the link between corporate governance (or the level of legal investor protection) is not the same for the companies with different characteristics. La Porta noticed that if the firm has higher level of corporate governance it is more likely to have a stronger negative relationship between dividends and growth opportunities. Similar idea is confirmed in paper of Mitton, where stronger corporate governance is associated with a stronger negative relationship between growth and dividends. Bhattacharya et.al. (2016) analyses how interaction of idiosyncratic risk with corporate governance contribute to the outcome (substitute) effect of payout policy [3]. Authors find that for low-risk companies outcome effect dominates and the reverse result for the high-risk companies.

The contribution of our paper is to show that additional characteristics such as net and operational effectiveness and lifetime characteristics are important in explaining the link between dividends and corporate governance. Our paper aims to test different explanations of mixed results presented in empirical literature on dividends and corporate governance. We employ a modern econometric technique,

which has significantly improved the quality of the results obtained earlier, make necessary robustness check with various control variables and different sample. We consider different types of agency conflict in corporation using data on the different dimension of corporate governance. Following Mitton (2004) we test the idea that growth opportunities can affect the choice between Outcome and Substitute model. In addition, we question, what other fundamental indicators can determine the choice of dividend policy for companies with different level of investor protection.

The results of this paper add to the current literature in a few ways. Firstly, we use different dimensions of ISS corporate governance index to analyze the corporate governance mechanism and dividend payouts in mitigating two types of agency conflicts. Secondly, we test Mitton (2004) hypothesis of growth opportunities significant influence with Tobit model and test if it can affect the choice between Outcome and Substitute model. Finally, we find additional factors that can affect the link between corporate governance quality and dividend payouts, net and operational effectiveness and beta in particular. In section 2 previous empirical findings are presented with the attempt to classify the results and provide explanations, discussed in the literature and the discussion of our main hypothesis. Section 3 presents data description and justification of the choice of corporate governance measure. Section 4 presents the empirical results and robustness check, discuss interpretations of the results and examine alternative specification. Section 5 concludes.

2. Literature Review

There are several explanations for the differences in the empirical results of the authors: different metrics of corporate governance; different estimation techniques; sample selection; country specifics. Table 1 presents the results of the most cited empirical papers on the link between corporate governance and dividend payments. Authors use different firm-level and country-level characteristics of corporate governance, which are not identical and address different types of agency conflict. For instance, G-index is focused on antitakeover provisions, while individual characteristics are based on Board of Directors structure or ownership structure. The most recent papers use the ISS index for corporate governance, which is a comprehensive indicator of corporate governance. Estimates based on OLS do not take into account the censored nature of the dependent variable (the share of dividend payments), to do this recent papers apply Tobit regression for panel or cross-sectional data. In addition, since the studies are made for different regions, country specificity cannot be excluded.

Table 1

Outcome and Substitute models in modern empirical studies

Paper	Data	Corporate Governance	Result
La Porta R. et al., 2000.	4,103 firms from 33 countries, 1989 -1994	Proxies for protection of minority shareholders: (civil/common law; index of anti-director rights)	Outcome model

Mitton T., 2004	365 firms from 19 countries	At the firm level - corporate governance ratings developed by Credit Lyonnais Securities Asia At country-level - proxies for protection of minority shareholders: (civil/common law; index of anti-director rights)	Outcome model
John K., Knyazeva A., 2006.	US firms, 1992 - 2003	External G-Index from IRRC database Internal G-index For robustness check - separate characteristics	Substitute model
Jiraporn P., Ning Y., 2006.	US firms, 1993 - 2002	External G-Index	Substitute model
Officer M., 2006.	US firms, 1974 - 2004, predicted dividend payers	Separate characteristics: Board size; if CEO is the chairman, % of executive directors on board; % of ownership by executive directors (officers) etc.	Substitute model
Adjaoud F., Ben-Amar W., 2010.	Canada, 2002 - 2005	Globe & Mail annual corporate governance index and four sub-categories scores	Outcome for corporate governance index, for board composition and shareholder rights' policy Insignificant for 2 separate categories
Jiraporn P., Kim J. C., Kim Y. S., 2011.	All firms reported by the ISS from 2001 to 2004	Governance standards reported by ISS: "Gov-score", "ISS-score"	Outcome model
Brown T., Roberts H., 2016.	New Zealand, 2004 - 2012	CEO independence, Board independence	Outcome model
Du Boys C., 2017	France, 2000 to 2005	Board characteristics, the share of blockholder	Insignificant for board characteristic, except independence (positive) Substitute for the share of blockholders

Sakr A., Youssef N., 2017	Egypt, 2004 - 2013	Corporate Index (6 elements)	Outcome model for index Insignificant for separate elements
Elmagrhi M. H. et al., 2017	UK small and medium-sized enterprises, 2010 - 2013	Separate characteristics: Board size; if CEO is the chairman, % of independent directors; number of board meetings, board gender diversity, audit committee size ect.	Outcome for board and audit committee size Substitute for number of meetings, for gender diversity

Source: made by Authors

The type of agency conflict can also affect the choice between Outcome and Substitute model. Barca, Becht (2001) in their book record a high concentration of control of corporations in many European countries with single blockholders frequently controlling more than fifty per cent of corporate votes, in contrast a majority of US listed companies have no blockholder with more than six per cent of shares [2]. Thus, the classical conflict between managers and shareholders is an issue for the US economy, not the European companies. Pindado et. al (2012) investigate dividend policy of European family firms and show the importance of taking into account the identity of large shareholders [21]. They show that distributing higher and more stable dividends is used to overcome agency problems between the controlling family and minority investors. Du Boys (2017) studies the influence on conflicts between managers and shareholders and between majority and minority shareholders and identifies their relationships with payout. Through the study of French firms he shows that in France payout is not used to regulate conflicts between majority and minority shareholders, but rather to limit free cash flow risk or conflict between managers and shareholders. The author shows that among other corporate governance practices the majority of board characteristics do not affect dividend payouts, while institutional characteristics do.

The idea behind this result - is that different governance practices have limited efficiency to control different types of conflicts. For instance, board efficiency is limited by the fact that managers are founders of the company or a large ownership (Randall et al., 1989) [23]. The extension of legal protection with external instruments can defend the interests of minority shareholders from both risks of expropriation by managers or controlling shareholders (Du Boys, 2017). For instance, market control through audit or debt holders activities can be efficient for companies with concentrated ownership while antitakeover provisions can be a good corporate governance mechanism in firms with dispersed ownership (Denis, McConnell, 2003) [8]. We use this idea to test the hypothesis that *the link between corporate governance and dividend payouts is different for different governance practices and depends on the type of conflict it is focused on*. In the next part, we consider how various dimensions of ISS corporate governance index that are associated with two major types of agency conflicts.

We also test the idea that *firms can choose Outcome or Substitute strategy depending on their internal characteristics, namely, growth opportunities, size, profitability and the level of systematic risk.*

Growth opportunities. Outcome model can fail to explain dividend policy for companies with high growth opportunities as even when shareholders are well protected, however, they may not prefer higher dividend payouts if they believe the firm has good investment opportunities available for excess cash. La Porta et al. (2000) shows that for the country-level of investor protection, for the firm level of investor protection Mitton (2004) finds similar relationship between dividends and growth opportunities. We test the same hypothesis here with the Tobit model. With the same technique we test if other financial characteristics that as it has been shown previously are correlated with dividend payouts can affect this relationship too.

Size. Following Fama & French (2001) [13] we consider the size of the company as an important corporate lifecycle characteristic. Shareholders of yang small-sized companies would generally prefer higher investments instead of dividend payments. Adding corporate governance to this construction, we get the idea that good corporate governance is accompanied by lower dividend payments for companies in the early stages of the life cycle as it follows their preferences and vice versa. This idea was tested in our previous paper for BRICS countries [18], we did not get robust results for all the countries, but found proof for Brazil for all the specifications.

Profitability. There are two competing views on the link between dividend payouts and profitability - positive relation integrates into the free cash flow concept, negative - to the theory of corporate lifecycle (Fama, French, 2001). We consider high operational profitability as the sign of stable cash flow in the long run, which can drive Outcome strategy. Profitability based on the net profit may not carry high level of operational cash flow, so companies with good governance can choose leave the cash in the company.

Risk. Unlike Bhattacharya et. al. (2016) we focus on systematic risk measured with beta instead of idiosyncratic risk as it can represent the required cost of capital of the company. It is in line with the prepositions of Rozeff [25] that higher betas are reflecting higher operating and financial leverage and firms pay lower dividends to avoid the cost of external financing. The idea that investment policy influence dividend policy is well covered in the literature (Higgins, 1972) [14]. Building on these arguments, we hypothesize that systematic risk have significant impact on the link between dividend payouts and corporate governance.

3. Data

We use data for 536 companies from 4 European countries (Germany, France, Italy and Spain) for 2017. Data are collected from Bloomberg database. We take all the listed companies with headquarters located in these 4 countries and with data available on dividends, ISS scores and control variables.

We focus on cross-sectional data because most of the variables we use are available only for the latest period. However, for a particular company, corporate governance measures are quite stable and vary little from year to year. Due to this

reason panel data may have little advantage on cross-section for the question we investigate.

As an aggregate measure of the corporate governance quality we use Quality Score developed by Institutional Shareholder Services (ISS). This score has been used in several previous studies to examine the impact of corporate governance on dividend policy (Jiraporn P., 2011, Chang, 2018) [15, 6]. It is based on more than 220 qualitative and quantitative factors, which reflect both internal corporate mechanisms and the quality of the political and institutional environment in the region. It accounts for regional heterogeneity by allowing set of factors and their weights to vary across countries. Because of this feature, Quality Score can be used to compare companies from different markets and countries without controlling for legal regime or other proxies for the country-level investor protection³.

Besides Quality Score as a general measure of corporate governance quality, ISS provides scores for more granular categories: Board Structure, Compensation/Remuneration, Shareholder Rights, and Audit and Risk Oversight. This allows us to analyze different types of agency conflicts in the company. Board Score is based on the classical measures of supervising managers' decisions and the board ability to act in defending shareholders' interests. However, the board efficiency can be limited by the fact that the directors are appointed on the annual meeting of shareholders. Thus, blockholders can influence board's decisions even if it is formally independent. Compensation Score is also focused mostly on the conflict between managers and shareholders, as it helps to control managerial opportunistic behavior and does not deal with blockholders' expropriation. Audit Score can cover both types of conflict by external monitoring of the company performance. Shareholder Score, by the definition, is focused on the defending shareholders' interests, so it should cover both types of conflicts.

Each ISS score can take integer values from 1 (best corporate governance) to 10 (worst corporate governance). For a more straightforward interpretation of regression coefficients, we use the inverse of the scores so that higher values correspond to the better corporate governance.

As a primary measure of dividends, we use dividends as a percentage of sales (Dividends on Sales) as in La Porta et al. (2000). We do not present results for dividend/earnings, because this measure is hard to interpret for companies with negative earnings and, hence, a substantial part of the sample should be dropped. Moreover, sales are harder to manipulate or smooth through accounting practices.

To test the hypothesis of growth opportunities we employ Sales Growth, because it is less dependent on accounting conventions in comparison with assets growth (which is used by Mitton). We use return on assets (ROA) and Operating Margin as measures of profitability, logarithm of Total Assets as a measure of size and Beta as a measure of risk.

To deal with outliers, Dividends on Sales are winsorized at the 95th percentile within each country. Sales Growth, ROA and Operating Margin are winsorized at 5th and 95th percentiles within each country.

³ Besides, Mitton shows that corporate governance and country-level investor protection work as complements for investor protection.

Table 2 presents descriptive statistic of the data by country. Generally, variables have comparable mean values and standard deviations across countries.

One can note that, at the country level, dividends are positively correlated with corporate governance quality (at least with the Inverse Quality Score). However, this effect is eliminated from the estimation results below, because we control for country dummies.

Table 2. Descriptive statistics by country.

		France	Germany	Italy	Spain	All Countries
Dividends on Sales, %	<i>Mean</i>	3.36	3.64	4.54	5.14	3.87
	<i>S.D.</i>	4.65	4.78	5.72	6.66	5.18
Inverse Quality Score	<i>Mean</i>	4.17	4.20	4.71	5.82	4.46
	<i>S.D.</i>	2.60	2.81	2.49	3.15	2.75
Inverse Shareholder Score	<i>Mean</i>	4.94	7.80	5.41	6.05	6.05
	<i>S.D.</i>	2.85	2.91	3.33	3.55	3.28
Inverse Audit Score	<i>Mean</i>	7.57	7.71	6.80	6.77	7.38
	<i>S.D.</i>	2.29	2.35	2.79	3.38	2.57
Inverse Board Score Inverse	<i>Mean</i>	4.27	4.07	5.39	6.05	4.62
	<i>S.D.</i>	2.56	2.81	2.54	2.43	2.71
Inverse Compensation Score	<i>Mean</i>	3.98	4.34	4.30	5.56	4.32
	<i>S.D.</i>	2.81	2.92	2.92	3.13	2.93
Sales Growth, %	<i>Mean</i>	8.24	8.08	4.32	6.22	7.20
	<i>S.D.</i>	10.28	9.98	10.91	7.92	10.18
Log of Assets	<i>Mean</i>	22.27	22.13	22.48	24.12	22.46
	<i>S.D.</i>	2.23	1.97	1.85	1.78	2.11
ROA, %	<i>Mean</i>	2.93	5.04	3.86	4.51	3.94
	<i>S.D.</i>	5.98	4.40	4.47	5.11	5.21
Beta	<i>Mean</i>	0.89	0.86	0.86	0.92	0.88
	<i>S.D.</i>	0.24	0.23	0.19	0.19	0.22
Operating Margin, %	<i>Mean</i>	4.62	10.64	7.77	13.72	8.10
	<i>S.D.</i>	13.70	15.67	12.21	19.66	15.11
<i>Share of Zero-Dividends Observations, %</i>		19.02	14.79	13.33	8.77	15.49
<i>Number of Observations</i>		205	169	105	57	536

Notes: S.D. stands for standard deviation. Data is from Bloomberg database for 2017.

4. Results and Discussion

We estimate the relation between corporate governance and dividend payouts using Tobit regression (as John, Knyazeva, 2006, Brown et. Al, 2016). Since dividends can take zero or positive values and are censored by their nature, for this setting, Tobit regression is more appropriate choice than ordinary least squares.

In the Tobit model, the latent variable y_i^* shows the dividends that company i is willing to pay. We assume that this latent variable depends linearly on the corporate governance quality x_i and control variables z_{i1}, \dots, z_{ik} :

$$y_i^* = \beta_0 + \beta_1 x_i + \gamma_1 z_{i1} + \dots + \gamma_k z_{ik} + \varepsilon_i,$$

where ε_i is normally distributed white noise. The observed value of dividend payments y is defined as follows:

$$y_i = \begin{cases} 0, & \text{if } y_i^* \leq 0, \\ y_i^*, & \text{if } y_i^* > 0. \end{cases}$$

Notice that we do not necessarily estimate the casual relationship. We cannot say that corporate governance affects dividends payouts but not vice versa. The estimates below are better to interpret as the correlation between these variables.

We begin by investigating whether corporate governance matters in the dividend payout decision with a simple setup. Table 3 presents the results of 5 Tobit regressions (for the 5 versions of ISS score). Only dummy variables for countries are used as control variables. Dependent variable is Sales on Dividends. Explanatory variable of interest is one of ISS scores. For brevity, we present only the estimate of coefficient at a corporate governance variable and do not present estimates for control variables.

Table 3. Tobit regression estimates. Control variables: country dummies.

Dependent variable: Dividends on Sales, %					
	Inversed Quality Score	Inversed Shareholder Score	Inversed Audit Score	Inversed Board Score	Inversed Compensation Score
Governance	0.249*** (0.095)	0.134+ (0.084)	0.112 (0.102)	0.218** (0.098)	0.249*** (0.089)
Number of observations	536	536	536	536	536
Pseudo R-Squared	0.005	0.004	0.003	0.004	0.005
Prob > chi2	0.004	0.025	0.045	0.009	0.003

Notes: Dummy variables for countries are used as control variables. +, *, **, *** denote significance at 20%, 10%, 5%, and 1% levels, respectively. Standard errors are reported in parentheses. *Governance* stands for one of the corporate governance quality measures reported in column header. *Prob > chi2* stands for regression significance test p-value.

In this simple setup, significant positive relation between corporate governance and dividends is found for all the governance measures except Audit Score. This result supports *outcome* hypothesis for our sample. We associate Board Score and Compensation Score mainly with the conflict between managers and shareholders. Shareholder Score covers the second type of conflict. Thus, *outcome* hypothesis means that dividends solve free cash flow problem by distributing cash among shareholders and protect minority shareholders' rights.

Table 4 presents the results of Tobit regressions with extended set of control variables. To the country dummies we add sales growth, logarithm of assets, return on assets, beta, and operating margin.

The estimate for Audit Score became significant. The estimate for Board Score became insignificant. As the Audit Score can cover both types of conflict, the main conclusion does not change. The results support the *outcome* hypothesis and show that

managerial conflict and the conflict between majority and minority shareholders can be solved with higher dividend payments.

Table 4. Tobit regression estimates. Extended set of control variables.

Dependent variable: Dividends on Sales, %					
	Inversed Quality Score	Inversed Shareholder Score	Inversed Audit Score	Inversed Board Score	Inversed Compensation Score
Governance	0.156** (0.074)	0.164*** (0.062)	0.216*** (0.076)	0.084 (0.076)	0.095+ (0.070)
Number of observations	536	536	536	536	536
Pseudo R-Squared	0.108	0.109	0.11	0.107	0.108
Prob > chi2	0.000	0.000	0.000	0.000	0.000

Notes: Control variables used for estimation: dummy variables for countries, Sales Growth, Log of Assets, ROA, Beta, Operating Margin. +, *, **, *** denote significance at 20%, 10%, 5%, and 1% levels, respectively. Standard errors are reported in parentheses. *Governance* stands for one of corporate governance quality measures reported in column header. *Prob > chi2* stands for regression significance test p-value.

To test whether a company can switch to the *substitute* model or not follow direct link between corporate governance and dividends, we estimate the model, where coefficient at corporate governance can vary with company characteristics. The equation for the latent variable can be rewritten as follows:

$$y_i^* = \beta_0 + (\alpha_0 + \alpha_1 w_{i1} + \dots + \alpha_{im} w_{im}) x_i + \gamma_1 z_{i1} + \dots + \gamma_k z_{ik} + \varepsilon_i,$$

where w_{i1}, \dots, w_{im} are factors that can affect the coefficient at the corporate governance x_i . To estimate the model, we open the parenthesis and run Tobit regression with x_i , cross terms $x_i w_{i1}, \dots, x_i w_{im}$, and control variables z_{i1}, \dots, z_{ik} .

In the regressions, we use the deviation from the mean value for factors w_{i1}, \dots, w_{im} to simplify the interpretation of the estimates. In this case α_0 can be seen as the coefficient at corporate governance for a company with average characteristics. As control variables we use country dummies, sales growth, logarithm of assets, return on assets, beta, and operating margin.

Table 5 reports the results for the case when only sales growth can affect coefficient at corporate governance (as in Mitton, 2004).

Table 5. Sales growth affects coefficient at corporate governance.

Dependent variable: Dividends on Sales, %					
	Inversed Quality Score	Inversed Shareholder Score	Inversed Audit Score	Inversed Board Score	Inversed Compensation Score
Governance	0.156** (0.074)	0.165*** (0.062)	0.209*** (0.077)	0.083 (0.076)	0.099+ (0.070)
Governance x Sales Growth	0.000 (0.007)	-0.009+ (0.006)	-0.005 (0.007)	0.002 (0.007)	0.014** (0.007)
Percentage of observations with negative forecasted relation	0	4.851	0	0	17.537
Number of observations	536	536	536	536	536

Pseudo R-Squared	0.108	0.109	0.110	0.107	0.108
Prob > chi2	0.000	0.000	0.000	0.000	0.000

Notes: Control variables used for estimation: dummy variables for countries, Sales Growth, Log of Assets, ROA, Beta, Operating Margin. +, *, **, *** denote significance at 20%, 10%, 5%, and 1% levels, respectively. Standard errors are reported in parentheses. *Governance* stands for one of corporate governance quality measures reported in column header. *Prob > chi2* stands for regression significance test p-value.

Notice that to make a conclusion about the link between dividends and corporate governance we should consider two coefficients – at *Governance* and at *Governance x Sales Growth*. To simplify the analysis, we also report the percentage of observations for which the forecast of the coefficient at corporate governance quality ($\alpha_0 + \alpha_1 w_{i1} + \dots + \alpha_{im} w_{im}$) is negative.

The estimates in Table 5 still support the *outcome* hypothesis for three measures of corporate governance – Quality Score, Shareholder Score, and Audit Score.

The hypothesis that sales growth can affect the link between dividends and corporate governance quality is supported only for Compensation Score. For companies with higher sales growth the link is stronger. It means that companies with higher growth rates can still pay higher dividends if their compensation policy is strong. It is unlike Mitton’s result with stronger negative relationship between dividends and growth (which is proxy for growth opportunities) for companies with stronger corporate governance. Compensation Score covers the managerial conflict mainly, but does not cover conflict among majority and minority shareholders. Minority shareholders may push managers to pay dividends even if growth opportunities are high. An interesting conclusion is that for companies with low sales growth the link between dividends and corporate governance quality may become negative so that the Substitute hypothesis will be valid for them. For our sample, the share of such companies is not high – only 17.5%.

Table 6 presents the results for the case when a large set of variables can affect the coefficient at corporate governance. The hypothesis that the relation between dividends and corporate governance quality depends on company characteristics is supported for all the ISS scores. Moreover, the share of companies with negative relation is substantial – from 12.7% for the model with Shareholder Score to 46.6% for the model with Compensation Score.

Our results show that for some companies *outcome* hypothesis is true, while for others *substitute* hypothesis is true – and the choice depends on company characteristics.

If we look at general Quality Score, *substitute* hypothesis is more likely to be valid for companies with high ROA and low operating margin. Companies with such characteristics and high quality of corporate governance pay lower dividends and vice versa. We can find two arguments from the life-cycle theory to explain the result:

1. Higher ROA values are usually unstable, it is risky to pay dividends if shareholders don’t push managers to do it.
2. Investment consideration implies using the opportunity to take more projects with higher return (corresponds with the idea of expected growth rate by Mitton).

The coefficient at ROA is also negative for Board Score and Compensation Score, while for Audit Score value is positive. Thus, the interpretation stays valid for the companies with managerial conflict.

At the same time, low operating margin is considered as a sign of unstable cash flow in the long run, thus choosing corporate governance instead of dividends to protect shareholder rights is a good choice. It stays positive for Audit Score and Compensation Score and becomes negative for Board Score.

The effect of both factors (net income and operating profit coefficients) in the regression with Compensation Score makes more than 46% of companies to switch to *substitute* model in their dividend policy.

We also find significant coefficients on the other factors in individual models. Sales growth makes positive link between dividends and governance stronger for Board Score while makes it negative for Shareholder Score and Audit Score. Conflicting results provide insignificant effect for the Quality Score. Beta affects the link negatively in the model for Board Score and stays insignificant for the others. Negative coefficient follows our suggestion that companies with higher beta pay lower dividends to avoid the cost of external financing. However, the result is not robust for different ISS dimensions and requires further investigation.

Coefficients on firm size stay insignificant for all the specifications.

Table 6. Many factors may affect coefficient on corporate governance.

Dependent variable: Dividends on Sales, %					
	Inversed Quality Score	Inversed Shareholder Score	Inversed Audit Score	Inversed Board Score	Inversed Compensation Score
Governance	0.086 (0.073)	0.143** (0.065)	0.140* (0.078)	0.147* (0.076)	0.062 (0.069)
Governance x Sales Growth	-0.001 (0.008)	-0.010* (0.006)	-0.020*** (0.008)	0.013* (0.007)	0.011+ (0.007)
Governance x Log of Assets	-0.009 (0.035)	0.015 (0.032)	-0.016 (0.032)	0.001 (0.039)	-0.03 (0.033)
Governance x ROA	-0.048** (0.019)	0.015 (0.017)	0.040** (0.020)	-0.051** (0.020)	-0.056*** (0.018)
Governance x Beta	-0.043 (0.320)	-0.08 (0.283)	0.469+ (0.365)	-0.664** (0.328)	-0.291 (0.301)
Governance x Operating Margin	0.030*** (0.005)	0.003 (0.005)	0.018*** (0.005)	-0.015** (0.006)	0.035*** (0.005)
Percentage of observations with negative forecasted relation	36.567	12.687	32.276	32.090	46.642
Number of observations	536	536	536	536	536
Pseudo R-Squared	0.108	0.109	0.11	0.107	0.108
Prob > chi2	0.000	0.000	0.000	0.000	0.000

Notes: Control variables used for estimation: dummy variables for countries, Sales Growth, Log of Assets, ROA, Beta, Operating Margin. +, *, **, *** denote significance at 20%, 10%, 5%, and 1% levels, respectively.

Standard errors are reported in parentheses. *Governance* stands for one of corporate governance quality measures reported in column header. *Prob > chi2* stands for regression significance test p-value.

To conclude, the results confirms the link between financial characteristics and the choice between *outcome* and *substitute* models. The indirect effects of the interaction between financial characteristics and corporate governance measures are significant for the individual dimensions of corporate governance. We found significant values for the overall indicator for the profitability values only. Multidirectional effects that we discussed here, in general, give a certain explanation to the fact that authors have mixed results when testing *outcome* and *substitute* hypotheses.

5. Conclusion

Classical *outcome* hypothesis that companies with stronger governance should pay more dividends is proved with all the basic regressions. This was expected for the sample of European companies and follows the results presented for non-USA datasets (see Table 1). This result holds for different dimensions of corporate governance capturing conflicts between managers and shareholders and minority-majority shareholders. The fact that European market is represented by the companies with concentrated ownership does not limit the overall *outcome* effect of the corporate governance.

We didn't find the proof that the growth opportunities tend to decrease the level of dividend payments with the same level of corporate governance as La Porta et. al and Mitton revealed. Instead, we show the opposite effect for the Compensation Score - companies with stronger governance tend to pay higher dividends while having high growth opportunities. We conclude that managerial conflict resolution is not enough to approve distribution of cash flow to investment projects instead of dividends. Our estimation shows that company can even switch to the *substitute* model if growth rate is low.

Our estimation of the interaction between corporate governance and other financial characteristics, such as profitability, firm size and risk, shows that in some cases substitution effect can be important for the payout policy. Increase in operational margin and beta and decrease in ROA tend to strenghten the *outcome* effect. And vice versa, decrease in operational margin and beta and increase in ROA can make companies to use *substitute* model. Despite the dominance of *outcome* model for our sample, we show that a part of companies can follow *substitute* model, if they meet special financial characteristics.

References

1. Adjaoud F., Ben-Amar W. Corporate governance and dividend policy: shareholders' protection or expropriation? // Journal of business finance & accounting. - 2010. - T. 37. - №. 5-6. - C. 648-667.
2. Barca F., Becht M. The Corporate Control in Europe. - 2001.

3. Bhattacharya D., Li W. H., Rhee S. G. Does Better Corporate Governance Encourage Higher Payout?: Risk, Agency Cost, and Dividend Policy. - 2016.
4. Bhattacharya S. et al. Imperfect information, dividend policy, and “the bird in the hand” fallacy //Bell journal of economics. - 1979. - T. 10. - №. 1. - C. 259-270.
5. Brown T., Roberts H. Agency Theory, Corporate Governance and Dividend Payout in New Zealand. - 2016.
6. Chang B. et al. Corporate Governance And Dividend Payout Policy: Beyond Country-Level Governance //Journal of Financial Research. - 2018. - T. 41. - №. 4. - C. 445-484.
7. DeAngelo H., DeAngelo L., Stulz R. M. Dividend policy and the earned/contributed capital mix: a test of the life-cycle theory //Journal of Financial economics. - 2006. - T. 81. - №. 2. - C. 227-254.
8. Denis D. K., McConnell J. J. International corporate governance //Journal of financial and quantitative analysis. - 2003. - C. 1-36.
9. Du Boys C. Is payout policy part of the corporate governance system? The case of France //European Journal of International Management. - 2009. - T. 3. - №. 1. - C. 42-59.
10. Easterbrook F. H. Two agency-cost explanations of dividends //The American economic review. - 1984. - T. 74. - №. 4. - C. 650-659.
11. El-Ansary O., Gomaa T. The life cycle theory of dividends: Evidence from Egypt //International research journal of finance and economics. - 2012. - T. 97. - C. 72-80.
12. Elmagrhi M. H. et al. Corporate governance and dividend pay-out policy in UK listed SMEs //International Journal of Accounting & Information Management. - 2017.
13. Fama E. F., French K. R. Disappearing dividends: changing firm characteristics or lower propensity to pay? //Journal of Financial economics. - 2001. - T. 60. - №. 1. - C. 3-43.
14. Higgins R. C. The corporate dividend-saving decision //Journal of Financial and Quantitative Analysis. - 1972. - T. 7. - №. 2. - C. 1527-1541.
15. Jiraporn P., Kim J. C., Kim Y. S. Dividend payouts and corporate governance quality: An empirical investigation //Financial Review. - 2011. - T. 46. - №. 2. - C. 251-279.
16. Jiraporn P., Ning Y. Dividend policy, shareholder rights, and corporate governance. - 2006
17. John K., Knyazeva A. Payout policy, agency conflicts, and corporate governance. - 2006.
18. Larin A. V., Novak A. E., Khvostova I. E. How Corporate Governance Influence Dividends on Different Corporation Lifecycle Stages // St Petersburg University Journal of Economic Studies. - 2019.
19. Mitton T. Corporate governance and dividend policy in emerging markets //Emerging Markets Review. - 2004. - T. 5. - №. 4. - C. 409-426.
20. Officer M. S. Overinvestment, corporate governance, and dividend initiations //Journal of Corporate Finance. - 2011. - T. 17. - №. 3. - C. 710-724.
21. Pindado J., Requejo I., de la Torre C. Do family firms use dividend policy as a governance mechanism? Evidence from the Euro zone //Corporate Governance: An International Review. - 2012. - T. 20. - №. 5. - C. 413-431.
22. Porta R. et al. Agency problems and dividend policies around the world //The journal of finance. - 2000. - T. 55. - №. 1. - C. 1-33.
23. Randall M., Andrei S., Vishny Robert W. Alternative mechanisms for corporate control //American Economic Review. - 1989. - T. 79. - №. 4. - C. 842-852.
24. Rozeff M. S. Growth, beta and agency costs as determinants of dividend payout ratios //Journal of financial Research. - 1982. - T. 5. - №. 3. - C. 249-259.
25. Sakr A., Youssef N. The Effect of Corporate Governance on Mutual Fund Dividend Policy: Evidence from Egypt.