

Empirical Evidences Regarding Correlation between Dividend Policy and the Performance of Companies Listed on the Bucharest Stock Exchange

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Abstract

Dividend policy is considered to be one of the most important financial decisions with implications on the share's price and therefore on profitability or on financing investment projects that can generate an increase in the company's value. In order to identify the correlation between dividend policy and corporate performance of 55 companies listed on the Bucharest Stock Exchange in 2010-2013, we have tested the relationship between dividend per share, dividend in the previous year, on the one hand and earnings per share, return on assets (ROA), return on equity (ROE), return on the share, Tobin Q, market to book ratio, free cash flow (FCF). The only variable influenced by the dividend per share, dividend in the previous year (DIV_{t-1}) is the profit per share.

Key-words: Bucharest Stock Exchange, Return on assets, Return on Equity, performance, dividends

1. Introduction

Dividends or reinvestment of profits? That is the question. The decision to distribute the profit as dividends is important because this determines which the free cash flow is available to investors is and how many funds are kept by the firm for investments. Moreover, dividends provide information to interested parties regarding the company's performance. An efficient company may acquire operational assets necessary to the company, may cover existing debts or distribute dividends to shareholders.

Giving dividends brings a number of advantages: it provides a positive signal about the state of company (a granting dividends company is a company that has the financial ability to honor its obligations to investors), dividends are attractive because they provide current and future income to shareholders. A company that has rewarded investors with dividends annually, if it will announce their decrease or the profit reinvestment it will adversely affect the market price (Omran and Pointon, 2004).

We'll use different panel models that followed, first, identification of the type of connection between economic, financial profitability and influence factors mentioned above. Empirical test results were interpreted in terms of economic and compared with the practice in other countries. Abor and Bokpin, 2010; Adaoglu, 2000; Amidu, 2007; Denis and Osobov, 2008;

Arnott and Asness, 2003; Hardin and Hill, 2008; Goergen, *et al.* 2005; Howatta, 2009; Kangarlouei *et al.*, 2012 also studied the correlation between performance and the dividend policy.

The work is structured as it follows: Section 2 presents the main theoretical foundation, in Section 3 it is described the variables used and the work methodology, and Section 4 contains the results of empirical testing. The last part is dedicated to conclusions.

2. Literature review

Profitability of company expressed as earnings per share (EPS) was one of the first indicators that show the company's ability to distribute dividends. Lintner (1956) demonstrated that the payment of dividends is influenced by the current year's profit (EPS) and by the dividend from the previous year (DIV_{t-1}). Companies in countries such as Turkey, China, and Malaysia distribute dividends based on actual profits made, unlike UK companies whose dividend distribution policy is very clear - all companies awarded annually growing dividend (Adaoglu, 2000; Wang *et al.*, 2002). Goergen, Silva and Renneboog (2005) concluded that the net profit (EPS) and dividend policy are closely linked to firms in Germany. Pruitt and Gitman (1991) identified for top 1000 US companies a positive relationship between dividend policy and profitability. The amount of dividends granted was influenced by annual profits and dividends from last year.

Hypothesis 1: There is a positive relationship between dividend policy and company's profit

Dividend policy change has an impact on future profits and thus on future profitability. A study conducted by Arnott and Asness (2003) showed that an increase of future performances is associated with a high level of current dividend paid. Zhou and Ruland (2006) showed that firms that practice a high level of dividend will have increasing performances in the future. Amidu (2007) showed a positive and significant relation between return on assets/return on equity and dividend policy for companies in Ghana. Also a high dividend payout indicates confidence of management in the stability and/or in future performance increase (Arnott and Asness, 2003).

Hypothesis 2: There is a positive relationship between dividend policy and the company's performance

Dividend policy has a negative impact on investment opportunities (*Market to Book Ratio*) Firms must retain more funds for reinvestment within some investment projects, therefore, the size of paid dividends in this situation should be lower (Easterbrook, 1984).

Empirical studies support this negative relationship (Patra *et al.*, 2012; Kangarlouei *et al.*, 2012). Companies from emerging economies must retain funds to invest in future projects that have a positive net present value (Abor and Bokpin, 2010). Mitton (2004) believes that there is a strong negative relationship between dividends and investment opportunities in a country where shareholders' rights are well protected. Because well protected investors allow the company to buy shares, to keep the money in the hope of obtaining better returns in the future of profitable investment projects. Although managers are very reluctant to cut dividends for

companies that require additional funds for financing increasing needs, a large part of the profits are kept for this purpose by reducing payments as dividends (Amidu and Abor, 2006).

Hypothesis 3: There is a negative relationship between dividend policy and investment opportunities

A company without liquidities is a company that cannot give generously dividends. Alli, Khan, Ramirez, & G (1993) explained that cash flow (free cash flow) is the most important determinant of dividend policy. They believe that current profit can be influenced by accounting practices and may not accurately reflect the company's ability to distribute dividends. This helps determine the company's capacity to pay dividends. Gill, Biger and Tibrewala (2010) in their US study on capital market concluded that the relationship between cash flow and dividend distribution policy is insignificant. Studies such as those belonging to Jensen (1986), Holder et al. (1998) showed that companies that have larger free cash flow should distribute bigger dividends to reduce agency costs.

Hypothesis 4: There is a positive relationship between dividend policy and free cash flow of the company

3. Research methodology

Previously there were mentioned several relationships drawn from the literature, relationships established between corporate performance and dividend policy of listed companies. Basic characteristics and notations for each variable characterizing company's performance or the dividend policy are as it follows:

Table 1. Definition of used variables and influences of the dividend policy on corporate performance

VARIABLE	DEFINITION	SIGN
Independent variables		
DIV	The size of dividend per share	
DIV_{t-1}	Dividend from previous year	
Dependent variables		
1. EPS	Earning per share modification	+
2. ROA	Return on Assets	+
3. ROE	Return on Equity	+
4. RETURN	Return on shares currency	+
5. TOBIN Q	Stock capitalization/Total Asset	+
5. MBR	Investment opportunities expressed in the form of the ratio market value of equity/book value of equity	-
6. FCF	Free cash-flow of the company	+
Data from annual and semestral reports published on the following websites: www.bvb.ro – Site of the Bucharest Stock Exchange www.ktd.ro – Site of Investment Consulting Company KTD Invest SA		

The econometric analysis is based on regression models for estimating panel data, using Eviews program. The hypotheses stated within Section 2 will be empirically tested by estimating multivariate regression models for panel data, unbalanced, both without cross-sectional effects and fixed-effects models. Besides, in order to detect potential nonlinear relationships we will estimate several polynomial regression models. We consider the following general form of panel data regression model without cross-sectional effects:

$$Y_{it} = \alpha_i + \beta \times X_{it} + u_{it}, i = 1, 2, \dots, N, t = 1, 2, \dots, T \quad (1)$$

Where Y is the dependent variable (company's dividend policy expressed as Earnings per share – EPS, economic profitability - ROA, return on equity – ROE, return on market – RETURN, Tobin Q, market to book value – MBR or free cash-flow - FCF) on the one hand and X is the vector of independent variables (DIV and DIV_{t-1}), explanatory variables identified. The index i denotes the cross-section dimension, respectively the companies listed on the BSE, whereas t subscript denotes time, respectively the period 2010-2013. According to Baltagi (2005), most of the panel data applications employ a one-way error component model for the disturbances as following:

$$u_{it} = \mu_i + v_{it} \quad (2)$$

Where μ_i shows the unobservable individual-specific effect, whilst v_{it} shows the remainder disturbance.

4. Empirical results

The first variable used is the profit per share, since there is empirical evidence that both shareholders and management focus on this variable very much. It is noted that for 2010-2013, the empirical analysis performed on companies listed on Bucharest show that earnings per share (EPS) is significantly and positively influenced by the size of the dividend per share (DIV), the size of the previous dividend (DIV_{t-1}). Current dividends are high because the performance is high, but this cannot continue on long-term future. Increasing dividends could increase future performance. However, profitability will return to an equilibrium level will be lower in the future. Higher dividends may also be the result of strategy managers (signal theory) in order to keep investors, of satisfying and persuade them not to sell shares, even when in the future, expect lower profits. Finally, large dividends will lead to low reinvested funds and therefore low long-term performance.

Howatta (2009) found in his study that the change in size of dividends (DIV) and change in earnings per share (ΔEPS) is performed in the same direction. Moreover, a significant variation in the EPS will lead to a change of dividends in the same direction, regardless of investors' expectations regarding dividend policy, unless the company uses residual dividend policy. Hardin and Hill (2008) showed that an increase of dividends is associated to reduced agent costs, higher operating profit and a better ability to access short-term bank debt.

Table 2. Results of regression equations regarding the impact of dividend policy on the companies' performance listed on the Bucharest Stock Exchange within 2010-2013

MODEL	MODEL 1	MODEL 2	MODEL 3	MODEL 4	MODEL 5	MODEL 6	MODEL 7
Dependent variables	EPS	ROA	ROE	RETURN	MBR	TOBIN Q	FCF
Independent variables	<i>Coef</i> <i>t-stat</i>	<i>Coef</i> <i>t-stat</i>	<i>Coef.</i> <i>t-stat</i>	<i>Coef</i> <i>t-stat</i>	<i>Coef</i> <i>t-stat</i>	<i>Coef.</i> <i>t-stat</i>	<i>Coef.</i> <i>t-stat</i>
X₁ (DIV)	0.70 (0.00)*	0.02 (0.26)	0.02 (0.45)	-0.01 (0.90)	0.01 (0.90)	-0.03 (0.92)	0.01 (0.60)
X₂ (DIV_{T-1})	0.60 (0.00)*	0.03 (0.10)	0.02 (0.30)	-0.01 (0.84)	0.00 (0.96)	-0.03 (0.92)	0.00 (0.97)
R²	63.73%	2.22%	0.9%	0.03%	0.01%	0.01%	0.1%
F-statistic	190	2.44	1.00	0.03	0.01	0.01	0.14
P (F-statistic)	0.00	0.089	0.36	0.96	0.98	0.98	0.86

*, **, and *** indicates the importance step of 1%, 5%, and 10%.

A positive relationship between earnings per share (EPS) and previous dividend size (DIV_{t-1}) confirms the signal theory, current or previous dividend may act as a signal of current or future performance of the company. Many previous studies have shown that shares prices, profits tend to increase when an increase of dividends is registered and tend to fall when it is announced a decrease or lack of dividends.

Return on assets (ROA), Return on Equity (ROE), return on the stock exchange (RETURN) TOBIN Q, FCF are not significantly influenced by dividend policy practiced by companies listed on Bucharest. For economic profitability (ROA), Return on Equity (ROE) shows a positive sign associated to the regression coefficients of variables that show the size of the dividend per share (DIV) and the size of the previous dividend (DIV_{t-1}), but the coefficients of the Table 2 - Model no. 2 and 3 are not significant. Variable Market to Book Ratio (MBR) is not significantly influenced by dividend policy. The positive regression coefficient associated (Table 2 - Model no. 5) shows that firms with large investment opportunities tend to pay more dividends to attract potential existing investors and to benefit from the trust of shareholders, but the relationship between variables is not significant.

5. Conclusions

In order to analyze the correlation between dividend policy practiced and performance of companies listed on the Bucharest Stock Exchange in 2010-2013, we have found that earnings per share (EPS) is the only dependent variable significantly and positively influenced by the size of the dividend per share (DIV) and by the size of previous dividend (DIV_{t-1}). These links shows that minority shareholder rights are protected (agency theory), companies distributing an increasing dividend when profits increase. Net income per share (EPS) is one of the explanatory variables important for company's managers worldwide since this indicator provides an overview of how that company evolves. Dividends are important for shareholders and potential

investors because it shows whether a company has a high financial potential. Concurrently higher dividends may also be the result of strategy managers (signal theory) in order to keep investors, of satisfying and persuade them not to sell shares, even when in the future, lower profits are expected. Current or previous dividend can be used as a signal of current or future performance of the company and forecast cash flows.

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