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DIVIDEND POLICY DETERMINANTS IN CEE COUNTRIES

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Abstract. Investors in emerging markets often undertake above average risk, which can be reduced by including dividend paying stocks in the investment portfolio due to the following features: performance stability and predictability of the payouts. Besides, the dividends make significant part of the total shareholder return in the developed stock markets. The present research analyzes dividend payment behaviour within the CEE stock market, discusses its sustainability, looks into the factors which influence dividend payout ratio. According to the obtained results, dividend behaviour in CEE countries follows the pattern of the dividend payment behaviour observed in the developed markets: small capitalization companies are weak dividend payers and typical industries providing high yields are telecoms and utilities. Among other factors influencing the amount of dividends paid out by CEE companies, profitability and balance sheet stability are to be mentioned.

Keywords: dividend payment, sustainability, dividend yield, payout ratio, performance, CEE markets.

Jel classification: G11, G32, G35.

1. Introduction

The role of dividends in asset management industry gains importance due to the current low interest environment. Dividends can offer investors stable income without abandoning the option for obtaining high stock price return. According to Pictet Asset Management, over the period of December 1998-March 2012, 28% of the total gain from the MSCI Emerging Markets index was attributable to dividend income. Besides, high dividend portfolios offer less volatility. Emerging market companies, which nourish investors with the dividends, usually have well-managed business model possessing high competitive edge (Pictet 2012). The role of dividends in emerging markets, which are associated with the above average investment risk, is hard to underestimate.

However, there are a number of papers on dividend policies published, which often tend to be controversial. One of the most fundamental works on dividend payment policy published by Miller and Modigliani states that given the perfect capital markets, dividends are irrelevant in relation to the enterprise value (Miller and Modigliani 1961). But on the other hand, corporate finance theories such as bird-in-hand, tax preference or clientele effect are based on the investors' willingness to receive stable dividends. It makes the profit distribution and dividend payment decisions crucial for enhancing shareholder value.

Extensive studies are done in developed stock markets to discover various factors influencing payout ratios of the corporations. The same topic is also being covered in the emerging markets but to a lesser extent. Thus, the present paper contributes with the research on factors influencing payout ratios of Central and Eastern European (CEE) companies.

The number of the factors determining payout ratios identified in the academic literature increased over time substantially (Anil, Kapoor 2008). However, the authors of the study would like to concentrate on the most important ones, which are identified as the main contributors to the dividend payout ratio in the majority of academic researches on the dividend payout ratios.

Profitability: Corporate profitability is the primary indicator of a firm's ability to pay dividends. Al-Najjar and Hussainey (2009) mention that the profitability of the firm is the primary factor, which influences the increase of dividends paid out. Besides, profitability factor is supported by the signaling theory, as the company is willing to improve its investment attractiveness.

Debt level: The debt level indicates the firm's leverage, amount of borrowed funds in the capital structure and exposure to the insolvency risk. Level of debt is one of the main determinants of the dividend policy as argued in several studies (Pruitt, Gitman 1991; Aivazian *et al.* 2003).

Sales growth: In the company's developing phase, the profit is usually reinvested to finance further corporate development, while in the mature phase the company often becomes a cash cow and starts to share larger profits. Therefore, sales growth should have a negative effect on the dividends. Collins *et al.* (1996), Amidu and Abor (2006) show negative relationship between sales growth and dividend payout ratios.

Market-to-book value: Market-to-book ratios indicate the valuation of the company's equity on the market and serve as proxy to company's growth opportunities. Amidu and Abor (2006) show negative relationship of market-to-book value and the payout amount.

Therefore, the authors stated the following hypothesis prior to the research: corporate profitability, capital structure, sales growth and market-to-book of the companies exert substantial influence on dividend payout ratio.

The main objective of the present research is to study the dividend payment behavior of the CEE companies and determine the factors, according to which financial managers make decisions on dividend payments.

The research methods, which were employed to obtain the results, were the correlation analysis, regression analysis.

2. Dividend policies across the world

Dividend policies vary across the countries. The differences can be attributed to such factors as tax legislation, market tradition, investor preference and corporate specific factors. According to Lilley (2000), 95% of companies in New Zealand

pay a dividend each year, while in US only 20 % of companies make dividend payouts (Chen and Dhiensiri 2009). In Indonesia 45% of publicly listed companies pay dividend in the form of cash dividend, stock dividend, or bonus shares (Kurniasih *et al*. 2011). In CEE countries about a half of the listed companies pay dividends. There is also seen a positive trend of increasing number of dividend paying companies over the last 7 years with the highest rates of over 60% in 2007, 2008 and 2011 financial years.

Numerous studies on the dividend payout policy in developed countries reveal the factors, which have a certain impact on the amount of dividends paid. For instance, Fung (2004) studying US companies found out that dividend-paying firms usually are larger (book value and market value), more profitable and have higher earnings yield, which shows the percentage of each dollar invested in the stock that was earned by the company. Another study on the US companies (Gill *et al.* 2010) proves that dividend payout ratio has positive relationship with the profit margin, debt-to-equity ratio, tax and negative relationship with the sales growth.

Research on the UK companies proved significant relationship neither between dividend payout ratio and sales growth nor between dividend payout ratio and debt level. However, positive influence of firm's size, profitability (as measured by earnings per share) and firm risk (as measured by beta) on the amount of dividends was discovered by Shabibi and Ramesh (2011).

Hedensled and Raaballe (2008) when studying Danish companies state that higher payout ratios are associated with higher returns on equity and greater payouts in the past.

Aivazian *et al.* (2003) made a comparative study to judge on the discrepancies in dividend payment behavior between developed country (represented by USA) and eight developing countries. Main findings were that the behavior pattern appears to be rather similar: higher ROE and higher market-to-book ratios positively influence dividends and high debt ratio has negative influence. Researchers note that emerging market companies having greater proportion of long-term assets pays less to their shareholders. No consistent evidence was found to prove the influence of size and business risk factors on the payout ratios.

Al-Najjar (2008) concludes that also Jordanian financial managers act consistently with their peers in developed markets when deciding on the amount of dividends to pay out. The factors influencing the decision are: leverage ratio, profitability, firm's size, assets structure and growth rate. He also mentions that the companies do have target ratios and tend to adjust to them faster than the developed markets companies.

The results provided by the analysis of the determinants of dividend payout ratio of Indian Information Technology sector conclude that there is no classical relationship between the dividend amount and profitability (Anil, Kapoor 2008). Only earnings beta and liquidity were able to explain the behaviour of payout ratios.

In Russia the most significant factor affecting amount of dividend payout is the ownership structure, but certain influence also have such factors as company size, profitability. Industry factor was spotted by the authors as well: largest dividends were paid by the oil and metallurgical companies. (Ruzhanskaia, Luk'ianov 2011).

Based on the available literature on dividend payout ratios, it was possible to make a summarizing table mentioning key factors determining the pay-out policies (Table 1).

Table 1. Influencing Factors Relationship with Dividend Payout Ratio (Source: compiled by authors)

Influencing Factor	**Relationship with Dividend Payout Ratio**
Firm's size	Positive
Profitability (profit margin, ROE)	Positive
Current and anticipated earnings	Positive
Cash flows or liquidity	Positive
Debt level	Ambiguous
Fixed assets proportion	Negative (for emerging markets)
Corporate tax	Negative
Risk (beta)	Negative
Growth opportunities (sales growth and market-to-book value)	Negative

3. Research data and methodology

To determine the main factors, which have the most significant influence on the amount of paid dividends, the authors of the present research analyzed 117 companies, which are included in the main lists of the CEE (Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Romania, Poland, Slovakia, Slovenia) stock exchanges. Though the first intention was to consider the last decade for the analysis purposes, the authors chose the period from January 2005 to June 2012 as the quality of earlier periods' data is questionable, which might lead to incorrect results. Quantitative and financial data for the present research needs were extracted from the annual reports of the analyzed companies. The stock prices were compiled using the historical data provided by the local stock exchanges.

The authors tested the most-commonly used factors: profitability level (ROE and profit margin), balance sheet robustness (equity ratio), sales growth (1 year sales growth rate), market to book value (price to book ratio), as the main determinants of the dividend payout ratio. Besides, the authors looked at these factors' influence on the dividend yield, though this ratio might not provide objective view, as it fluctuates significantly given the adverse corporate stock price movement.

The model equation for the payout ratio is the following:

$$PAYOUT = b_0 + b_1 * ROE + b_2 * EQ + b_3 * PM + b_4 * SG + b_5 * MTBV + \mu_{i,t}$$

where b0 denotes the intercept of the regression equation, and b1, b2, b3, b4, and b5 are the regression coefficients of ROE (return on equity), EQ (equity ratio), PM (profit margin), SG (1 year sales growth), MTBV (market to book ratio) respectively. The same regression form was run to find out the impact of each factor on the dividend yield size.

The size and industry factors were studied within the scope of this research as well, but they are not included in the regression.

4. Research results and discussion

4.1. Dividends in CEE countries

Current dividend payout ratio in Central and Eastern Europe is around 30%, which is rather modest but recovering after dividend cuts due to financial crisis. Besides, low level of the ratio is explained by the developing stage of many companies listed in CEE countries. To compare, payout ratio in US is 27%, while in Europe it is around 40% (Blackrock 2012).

The analysis of the influence of industry factor on the payout amount provides the evidence that emerging markets follow the similar pattern of the developed markets, when highest payouts are seen with the low-growth communications and utilities companies (see Fig. 1). Highest dividend yields are seen in the same industries as well as in the financial sector, which is also the case in developed stock markets. The chart does not provide plausible results on the technology industry as there is only one company representing this sector.

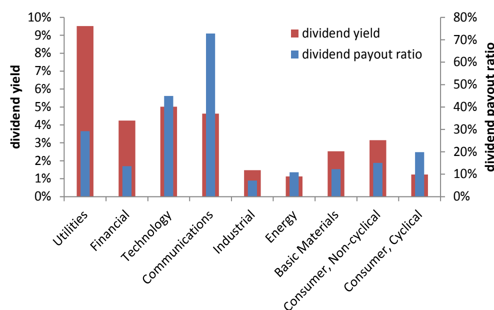

Fig. 1. Dividend yield and payout ratio by industries (Source: compiled by authors)

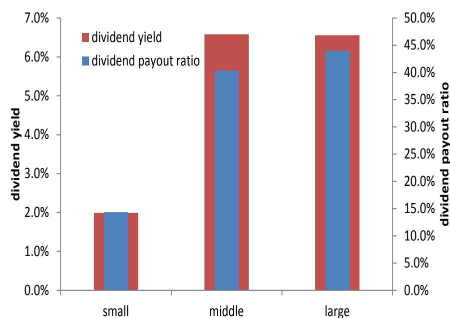

Fig. 2. Dividend yield and payout ratio by size (Source: compiled by authors)

To analyze the size factor impact, the sample of 117 companies was divided into three equal parts according to the market capitalization: large – over 800 mn USD, middle – between 150 and 800 mn USD and small – below 150 mn USD. Fig. 2 demonstrates that the size is also one of the payout ratio determinants as it clearly shows the difference between the average payout ratio of small companies (15%) and large companies (45%). The dividend yield of larger companies is also significantly higher.

4.2. Dividends payout determinants

To determine the factors affecting payout ratio and their significance the authors ran two regressions to analyze the results in the longer period of 2005-2012, which covers also financial crisis period, and shorter period of 2009-2012.

Table 2 results shows that the regression overall is statistically significant, however, R square is on a rather low level. The regression shows that the factors, which have the highest importance in determining the amount of dividend payouts, are equity ratio and profit margin.

It is interesting, though, that ROE, in contrast to the profit margin, is not able to provide statistically significant influence on the payout ratios, which does not support the previously done research (Norhayati, *et al.* 2010; Aivazan, Booth 2003). Sales growth though demonstrating expected negative relationship does not have a statistically significant impact on the ratio. Market to book ratio in the analyzed sample positively influences the payouts, which again contradicts the research of D'Souza (1999) and Amidu and Abor (2006) who discovered that cheaper companies usually pay higher share of profits. This can be explained by the market specifics of CEE countries, which deviate from the classical pattern of developed countries, where cheap companies often are low growth cash cows.

Table 2. Regression Estimates on Factors Affecting Dividend Payout 2005-2012 (Source: compiled by authors)

Dividend Payout Regression: **R square=0.0589, F=7.85**				
	Coefficients	Standard Error	t Stat	Significance
Constant	0.086	0.034	2.524	0.012
ROE	0.274	0.252	1.090	0.276
EQ	0.202	0.058	3.482	0.001
PM	0.252	0.077	3.251	0.001
SG	-0.159	0.097	-1.641	0.101
MTBV	0.014	0.010	1.343	0.180

Therefore, the CEE companies, which are likely to share higher amount of profits, usually have strong balance sheets and exhibit high profit margins, not necessarily having high capital profitability.

3 year regression results provide higher significance as shown by higher coefficient of determination, while F is still on a high level proving statistical significance of the regression (Table 3). The results describing the most recent situation with the CEE companies' dividend payouts appear to be more robust. Three of five coefficients become significant to determine the amount of dividend payout: equity ratio, profit margin as well as market to book value.

All of the significant coefficients exhibit positive correlation with the amount of payouts, which is again contradictory with the research on the developed markets, where cheap companies are more willing to share higher proportion of their profits with the investors. Return on equity and sales growth again appear to be insignificant to determine the payout ratio, which might be explained by still developing nature of the CEE quoted companies: dividend payers are able to offer worthy sales growth rate, while they are not very good at generating high return on equity.

Table 3. Regression Estimates on Factors Affecting Dividend Payout 2009-2012 (Source: compiled by authors)

Dividend Payout Regression: **R square=0.081, F=4.28**				
	Coefficients	Standard Error	t Stat	Significance
Constant	0.063	0.048	1.300	0.195
ROE	0.006	0.398	0.014	0.989
EQ	0.253	0.096	2.629	0.009
PM	0.248	0.124	1.991	0.048
SG	-0.019	0.272	-0.068	0.946
MTBV	0.015	0.007	2.288	0.023

Provided more significant results of the regression covering the most recent period of the last three years, the authors ran a regression with the same coefficients and the same period to find out whether any of the studied ratios have an impact on the dividend yield as well. The results compiled in the Table 4 show that the regression is statistically significant, but the only coefficient which appears to be relevant in determining the dividend yield is the return on equity.

Table 4. Regression Estimates on Factors Affecting Dividend Yield 2009-2012 (Source: compiled by authors)

Dividend Yield Regression: **R square=0.095, F=5.14**				
	Coefficients	Standard Error	t Stat	Significance
Constant	0.014	0.009	1.575	0.116
ROE	0.270	0.073	3.717	0.000
EQ	0.030	0.018	1.690	0.092
PM	0.002	0.023	0.084	0.933
SG	-0.026	0.050	-0.513	0.608
MTBV	-0.002	0.001	-1.344	0.180

Substantial discrepancy in the results of regressions determining dividend payout ratio and dividend yield shows that not necessarily the companies which generously share their earnings are able to provide high yield.

5. Conclusions

The present research focuses on discovering the factors, which affect dividend payout ratios of the CEE listed companies. The hypothesis (corporate profitability, capital structure, sales growth and market-to-book of the companies exert substantial influence on dividend payout ratio) stated prior to the research was partially proven when the authors tested the sample of 117 enterprises.

The obtained results revealed that the factors which have an influence on dividend payouts in CEE regions are mainly strength of the balance sheet as determined by the equity ratio and profitability as determined by the profit margin. Testing the most recent three years (2009-2012) showed that also market to book ratio has a positive influence on the proportion of profits shared with investor – expensive companies according to PB are more willing to share their profits with investors. Neither ROE nor sales growth have substantial influence on the payouts in CEE region, which might be explained by the emerging market specifics: high speed of the development often is seen also with the dividend-payers. In a nutshell, the dividend-payer in CEE can be characterized as a company with the stable balance sheet and high profit margin but it is not necessarily a slow-grower or has a high ROE generation ability.

The same as in the developed markets the size and the industry the company operates in do have an influence on the payout ratios: larger companies tend to pay more as well as the telecom and utility companies.

Further research regarding the dividend situation in CEE countries may be focused on the ownership structure, which can exert a significant influence on the corporate decision about the amount of dividends to be paid out, taking into account that the ownership of CEE companies often is concentrated.

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