Determinants of corporate dividend policy: evidence from romanian listed companies

Ciprian Cristea¹, Maria Cristea²

¹Technical University of Cluj-Napoca, Faculty of Electrical Engineering, ciprian.cristea@emd.utcluj.ro, Romania
²Technical University of Cluj-Napoca, Faculty of Electrical Engineering, fagarasan_maria@yahoo.com, Romania

Abstract—Although there is a vast literature that has investigated the dividend policies of firms from developed countries, relatively little research has been published exploring the dividend policies of firms from emerging countries. The literature regarding establishing the relationship between dividend policy and the attributes of non-financial companies listed on Romanian stock market, to the best of our knowledge, remains inexistent. The aim of this study is to identify the main factors influencing dividend policy for the non-financial companies listed on the Bucharest Stock Exchange for a period of ten years from 2007 to 2016. In order to achieve this aim, panel data were collected from the listed companies’ reports and financial statements. The study reveals that dividend policy is positively related to corporate profitability and liquidity and negatively associated with leverage, size, growth, and the state of the economy.

1 Introduction

The dividend policy is one of the most researched topics in corporate finance over the past decades. Dividend policy represents the set of guidelines a firm uses to dispose how much of its financial resources will payout to its shareholders, when it is not required by law, as mentioned by K. Kato, U. Loewenstein, W. Tsai [1]. M. Miller and F. Modigliani [2], pioneers in this field, demonstrate that dividend payments have no effect on company value and the payout ratios should not matter under perfect capital market assumptions. Yet, in the real world where markets that are far from being perfect, the irrelevance theory proposed by M. Miller, F. Modigliani [2] is no more an acceptable answer.

Dividend policy continues to retain the interest of academics, creditors, management, and shareholders. The importance attached to this topic arises from its interconnection with other corporate decisions, such as financing and investments, and its effect on shareholders’ wealth and on the whole economy I. Jabbouri [3]. Dividend income represents a part of the national income, hence, it helps in understanding the overall performance of the economy D.L. Papadopoulos, P.D. Charalambidis [4]. Choosing the dividend policy is a strategic decision, generally made by top managers, which requires the final approval of the board of directors. Dividends account for roughly thirty percent of the corporate profits of publicly-traded firms around the world A. Fatemi, R. Bildik [5]. The dividend policy literature is vast and contains many hypotheses, and explanations for dividends, financial academics proposing many competing theories about why firms pay, or do not pay, dividends and, despite extensive debate and ample empirical research, no universally accepted explanation is achieved on the actual motivation for paying dividends to be published H.K. Bakera, E. Kilincarslanb, A.H. Arsalc [6].

those of firms in 32 other countries for the period between 1985–2011 and found that the proportion of firms that pay dividends in the US is smaller than in the rest of the world.

G. Bekaert, C.R. Harvey [16] mention that corporate finance models are developed taking into account that are consistent with developed countries, which may cause that these models fail when tested in emerging ones. T. Lagoarde-Segot [17] specifies that managerial models are developed in Western countries, and when are applied in a different institutional context become poor guides to business decisions. Dividend policy is a topic of ongoing debate in both developed H.K. Baker, G.E. Farrelly, E.T. Veit [18] and developing countries A. Hafeez, Y.J. Attiya [19].

In this paper, we investigate the relationship between dividend policy and the attributes of non-financial companies listed on the Bucharest Stock Exchange Market for a period of ten years from 2007 to 2016. In this study, panel data analysis is applied to investigate the determinants of dividend policies of the Romanian companies mentioned above. This research has important implications for both theory and practice. No study, to the best of our knowledge, has examined the determinants of dividend policy in Romania and identified its main determinants. In order to quantify the company current profitability, return on equity is used as a proxy (Profitability). Return on equity is a firm’s net income divided by its shareholder’s equity. Quick or acid test ratio shows the ratio of cash and other liquid resources of a company in comparison to its current liabilities, being employed as a measure of liquidity (Liquidity). Finally, gross domestic product growth rate (GDP) will be used to control for the state of the economy.

In order to examine the impacts of these indicators (size of the firm, financial leverage, growth, current profitability, liquidity, and the state of the economy) on dividend policy, the study uses a panel analysis. For estimating the regression equation, the ordinary least square (OLS) method was used. The basic regression takes the following form:

\[
\text{Div}_i = \mu + \beta_1 \cdot \text{Size}_i + \beta_2 \cdot \text{Leverage}_i + \beta_3 \cdot \text{Growth}_i + \beta_4 \cdot \text{Profitability}_i + \beta_5 \cdot \text{Liquidity}_i + \beta_6 \cdot \text{GDP} + \mu_i
\]  

(1)

In this equation, the subscript \( t \) represents the time-series dimension and \( i \) denotes the cross-sectional dimension.

3 Results

Table 1 presents the descriptive statistics of the dependent and independent variables used in the empirical analyses. The annual cash dividend per share over the book value of assets per share of a company is on average 0.055 which is higher that of Argentinian (0.034) and Brazilian (0.027) companies J. Benavides, L. Berggrun, H. Perafan [22]. Average leverage is lower than the average corporate indebtedness for the Argentinian (0.449) and Brazilian (0.539) companies J. Benavides, L. Berggrun, H. Perafan [22].

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Median</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Div</td>
<td>0.055</td>
<td>0.032</td>
<td>0.079</td>
</tr>
<tr>
<td>Size</td>
<td>17.802</td>
<td>17.556</td>
<td>1.983</td>
</tr>
<tr>
<td>Leverage</td>
<td>0.217</td>
<td>0.153</td>
<td>0.187</td>
</tr>
<tr>
<td>Growth</td>
<td>0.137</td>
<td>0.034</td>
<td>0.715</td>
</tr>
<tr>
<td>Profitability</td>
<td>6.968</td>
<td>5.087</td>
<td>7.473</td>
</tr>
<tr>
<td>Liquidity</td>
<td>5.577</td>
<td>2.08</td>
<td>13.933</td>
</tr>
<tr>
<td>GDP</td>
<td>4.822</td>
<td>10.05</td>
<td>32.598</td>
</tr>
</tbody>
</table>

The dividend policy trend is shown in fig. 1. As revealed in fig. 1, an upward trend is evident during the global financial crisis years.
In this study, panel data analysis is applied to investigate companies mentioned above. This research has important implications for both dividend policy and the attributes of non-financial regulators, and policymakers in emerging markets. Finance and governance theories, academics, investors, and company analysts are interested in the determinants of dividend policy on the Romanian Stock Exchange. No study, to the best of our knowledge, has been conducted in this area.

In the next paragraph, the methodology is described. We collected annual reports and financial statements of 32 companies from Romania for the period 2007-2016, thus having 701 complete company observations. Those of firms in 32 other countries for the period between 2007 and 2011 were chosen due to their influence on dividend behavior in Romania and identify its main determinants. In Table 1, we present the Pearson correlation coefficients for the variables used in this paper.

Table 2. Pearson correlation coefficients for the variables

<table>
<thead>
<tr>
<th></th>
<th>Div</th>
<th>Size</th>
<th>Leverage</th>
<th>Growth</th>
<th>Profitability</th>
<th>GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Div (2-tailed)</td>
<td>1</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sign. (2-tailed)</td>
<td>0.1334 (0.00)</td>
<td>1</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leverage (2-tailed)</td>
<td>0.1134 (0.00)</td>
<td>0.0119 (0.002)</td>
<td>1</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth (2-tailed)</td>
<td>0.0041 (0.70)</td>
<td>0.0219 (0.056)</td>
<td>0.1</td>
<td>1</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Profitability (2-tailed)</td>
<td>0.1264 (0.0165)</td>
<td>-0.0348 (0.0097)</td>
<td>0.1326 (0.009)</td>
<td>1</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>GDP (2-tailed)</td>
<td>0.0005 (0.002)</td>
<td>0.0005 (0.002)</td>
<td>-0.0630 (0.002)</td>
<td>0.1264 (0.009)</td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>

It can be noticed that the values for annual cash dividend per share over the book value of assets per share were fairly stable over the study period, the lowest median is 0.026 in 2015 and the highest is 0.049 in 2009. In Table 2, we present the Pearson correlation coefficients for the variables used in this paper.

According to our assumption and to the results obtained in other researches we found a statistically positive correlation coefficient between dividend policy and company profitability, implying that if the return on equity decreases it will have a negative impact on the annual cash dividend per share over the book value of assets per share. We found a statistically negative correlation between leverage and dividend policy, which means that more leveraged companies are likely to pay lower dividends. There is a statistically negative correlation between liquidity and dividend policy, which indicates that the more liquid assets firms have, the less they are leveraged.

Table III shows the results of estimating regression model by investigating the relationship between dividend policy and the attributes of non-financial companies listed on the Bucharest Stock Exchange market.

![](image.jpg)

**Fig. 1.** Dividend policy trend during 2007–2016

The R-Squared represents a measure of the overall fitness of the model and specifies that the model is capable of explaining about 80% of the systematic variation in the dependent variable.

The empirical findings indicate that the firms’ profitability have a positive impact on the dividend policy decisions of listed companies, which means that the firms with high profits show an increase in the propensity to pay dividends more than less profitable companies. This is in line with Z. Jin [24], but this result may decrease dividend payments.

According to our assumption and to the results obtained in other researches we found a statistically positive correlation coefficient between dividend policy and company profitability, implying that if the return on equity decreases it will have a negative impact on the annual cash dividend per share over the book value of assets per share. We found a statistically negative correlation between leverage and dividend policy, which means that more leveraged companies are likely to pay lower dividends. There is a statistically negative correlation between liquidity and dividend policy, which indicates that the more liquid assets firms have, the less they are leveraged.

Table III shows the results of estimating regression model by investigating the relationship between dividend policy and the attributes of non-financial companies listed on the Bucharest Stock Exchange market.

The analysis documents a negative relationship between size and dividend policy, which means that the response of small companies’ stock prices to dividend announcements is higher than the reaction of larger companies. This is in line with Z. Jin [24], but this result does not agree with the findings of I. Jabbouri [3], H. DeAngelo, L. DeAngelo, D.J. Skinner [13] where they mentioned the fact that firm size is positively associated with dividend payout.

Table 3. Estimated results of panel data analysis

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.0472</td>
<td>0.0049</td>
<td>0.0000</td>
</tr>
<tr>
<td>Size</td>
<td>-0.0012</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td>Leverage</td>
<td>-0.0630</td>
<td>0.0029</td>
<td>0.0000</td>
</tr>
<tr>
<td>Growth</td>
<td>-0.0038</td>
<td>0.0015</td>
<td>0.0138</td>
</tr>
<tr>
<td>Liquidity</td>
<td>0.0005</td>
<td>0.0001</td>
<td>0.0007</td>
</tr>
<tr>
<td>Profitability</td>
<td>0.0038</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td>GDP</td>
<td>-0.0006</td>
<td>0.0001</td>
<td>0.0000</td>
</tr>
<tr>
<td>R²</td>
<td>0.7947</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj. R²</td>
<td>0.7930</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to our assumption and to the results obtained in other researches we found a statistically positive correlation coefficient between dividend policy and company profitability, implying that if the return on equity decreases it will have a negative impact on the annual cash dividend per share over the book value of assets per share. We found a statistically negative correlation between leverage and dividend policy, which means that more leveraged companies are likely to pay lower dividends. There is a statistically negative correlation between liquidity and dividend policy, which indicates that the more liquid assets firms have, the less they are leveraged.

Table III shows the results of estimating regression model by investigating the relationship between dividend policy and the attributes of non-financial companies listed on the Bucharest Stock Exchange market.

According to our assumption and to the results obtained in other researches we found a statistically positive correlation coefficient between dividend policy and company profitability, implying that if the return on equity decreases it will have a negative impact on the annual cash dividend per share over the book value of assets per share. We found a statistically negative correlation between leverage and dividend policy, which means that more leveraged companies are likely to pay lower dividends. There is a statistically negative correlation between liquidity and dividend policy, which indicates that the more liquid assets firms have, the less they are leveraged.

According to our assumption and to the results obtained in other researches we found a statistically positive correlation coefficient between dividend policy and company profitability, implying that if the return on equity decreases it will have a negative impact on the annual cash dividend per share over the book value of assets per share. We found a statistically negative correlation between leverage and dividend policy, which means that more leveraged companies are likely to pay lower dividends. There is a statistically negative correlation between liquidity and dividend policy, which indicates that the more liquid assets firms have, the less they are leveraged.

According to our assumption and to the results obtained in other researches we found a statistically positive correlation coefficient between dividend policy and company profitability, implying that if the return on equity decreases it will have a negative impact on the annual cash dividend per share over the book value of assets per share. We found a statistically negative correlation between leverage and dividend policy, which means that more leveraged companies are likely to pay lower dividends. There is a statistically negative correlation between liquidity and dividend policy, which indicates that the more liquid assets firms have, the less they are leveraged.
All the VIF are relatively small and none of them is greater than 1.4. Thus, there is no problem of multi-collinearity, which means there is not necessary to reduce the collinearity by eliminating variables from the analysis.

4 Conclusions

This paper examines the main determinants of dividend policy using a sample of Romanian non-financial companies listed on the Bucharest Stock Exchange market between 2007 and 2016. The study noticed that there was a positive association between the profitability of firms and dividend payout of companies. The paper, also, validates the positive relationship between firm’s liquidity and dividend policy. Thus, firms with a lack of liquidity are unlikely to distribute dividends. The paper revealed that there is a negative relationship between firms’ financial leverage and the dividend payouts decisions of listed firms. Thus, riskier and more financially indebted companies are likely to pay lower dividends. Likewise, growth, firm size, and the state of the economy are negatively related to dividend policy. The results of this paper are useful for academics, analysts, investors, and regulators in emerging markets.

References