EXAMINING THE DETERMINANTS OF DIVIDEND POLICY IN LISTED COMPANIES IN TEHRAN STOCK EXCHANGE

*Nasser Ali YadollahZadeh Tabari and Shahrokh Shirazi
1 Department of Economics, Babol Branch, Islamic Azad University, Babol, Iran
2 Department of Financial Management Department, Babol Branch, Islamic Azad University, Babol, Iran
*Author for Correspondence

ABSTRACT
Cash dividend is a part of the company's profits paid to shareholders in cash. Dividend distribution is the oldest and most common way to transfer cash returns to shareholders. Corporate management should always make decisions on maintenance or distribution of all or part of the dividend. For this reason, determining the most appropriate dividend policy and the factors that may affect this policy are the most important issues for financial managers. Many factors may affect dividend policy development. The aim of this study is to investigate the influence of institutional ownership, profitability, business risk, tangible assets, liquidity and firm size on dividend policy of the company listed in the Tehran Stock Exchange. For this purpose, 109 companies listed in Tehran Stock Exchange were chosen as the sample using screening sampling method for the period from 2008 to 2012. The results of estimated panel regression fixed effect model showed a significant positive relationship between tangible assets, liquidity, growth opportunities and firm size with the payout ratio (dividend policy) and significant negative relationship between institutional ownership and dividend payout ratio (dividend policy) in listed companies at the Tehran stock Exchange.

Keywords: Dividend Policy, Dividend Payout Ratio, the Stock Exchange

INTRODUCTION
The dividend policy is one of the most important issues of financial management and for many companies; dividends are a significant Initial Cash Outlay (ICO). At first glance, it may seem obvious that a company always wants to return shareholders' money to the extent possible by dividend payout. On the other hand, it is clear that companies can always replace dividend payout by reinvesting the shareholders' money. Determining the most appropriate dividend policy in the real world is an important issue and not an easy task and many factors are involved in determining dividend policy. As cash flow within the company is of great importance in evaluating the situation and power of liquidity, cash dividends per share are of great importance, due to being objective and tangible, to the holder of the stock as one of the important sources of liquidity. The dividend payout policy is very important and discussion-worthy regarding two issues. On the one hand, it is an influential factor on the company's investment, and it also reduces domestic resources and increases need for foreign funds, and on the other hand, many shareholders want cash dividends payout; therefore, they should always make a balance between their interest and opportunities for profitable investment to maximize their wealth. Therefore, the decision of the dividend payout made by the shareholders is very sensitive and important (Mehrani and Talanh, 2006).

Dividend payout policy can be defined as a factor creating balance between company's retained earnings on one hand and paying cash and issuing new shares on the other hand. This policy could encompass a range from non-payment of dividend policy to pay all the company's earnings (Reza, 2001). However, companies may distribute a fixed Rial amount of their profit, regardless of their income fluctuations, pay a fixed percentage of profits, or even distribute an amount of retained earnings of the past year among shareholders as the current dividend. The dividend payout policy is very important and discussion-worthy regarding two issues. On the one hand, it is an influential factor in the company's investment, and it also reduces domestic resources and increases need for foreign funds, and on the other hand, many shareholders want cash dividend payout.
Therefore, dividend payout decisions taken by managers of companies are very sensitive and important. Full attention to the factors and constraints affecting the dividend policy, in addition to maximizing shareholders' wealth, brings about preservation and development of the company in competition and increasing and development (Etemadi and Chalaaki, 2005).

Factors affecting the dividend payout ratio have attracted many researchers. Decisions on the amount of dividends payout is of important decisions the company faces. Dividend payout policy is of factors affecting the value of the company. Dividend payout policy among shareholders makes the continuity of the company possible and maximizes shareholder wealth. Dividend payout policy deals with those policies of the company that specifies the profit dividend of the company. In general, the relationship between dividend and earnings per share represents the dividend policy of the company. Dividend policy is one of the most important issues in corporate finance. Many researchers have provided the theoretical and empirical evidence concerning the dividend criteria, however, the problem of dividend policy still remains unresolved and no specific guidelines regarding the optimum established dividend policy have been identified to directly affect the expectations of the stakeholders, free cash flow, methods of financing, financial structure, and extending the unit's profit.

For this purpose, since dividend payout policy and factors determining it are of great importance to investors and financial managers of the company and stakeholders, in this study, we have tried to investigate the determinants of dividend policy and the relationship between each of these factors with dividend policy. Thus, checking the effects of prominent and major factors such as institutional ownership, profitability, business risk, tangible assets, financial assets, growth opportunities and firm size on the company's dividend policy is of considerable importance.

**Literature**

D'Souza et al., (1999) in an article entitled “Agency cost, market risk, investment opportunities and dividend policy” carried a study on 349 international companies over the years 95-1997 and the results of his study emphasized a negative relationship between agency cost and market risk on the ratio of dividend, but the negative relationship between dividend policy with investment opportunities was not confirmed.

Truong and Heaney (2002) studied the mutual relationship between major shareholders and dividend policy in different countries and examined a sample of 37 companies out of 8279 companies. They concluded that in the companies that have high profitability and their investment opportunities are limited, and as long as majority of their shareholders are foreigners, it is more likely that they pay dividends.

Amidu and Abor (2006) carried out a study entitled “Determinants of the ratio of dividend payout in Ghana” in Ghana from 2003 to 1998. Their study results showed a positive relationship between dividend ratio, profitability, liquidity and tax and the relationship between the ratio of dividend to commercial risk, institutional investors and growth opportunities is negative. The most important variables in this study were identified as profitability, liquidity and growth opportunities.

Beiner (2001) carried out a study entitled “Theories and factors affecting dividend policy” on a sample of 135 specimens from Swiss companies. He analyzed operating leverage, size, investment opportunities and dividends in previous years as dependent variables. Based on the results of multiple regression analysis, he concluded that: 1. the level of dividends depends on the level of the previous years' dividend 2. When companies have many investment opportunities divide less profit 3. Leverage of the company is another factor that is important in dividend policy 4. Firm size has a negative impact on the Company's dividend policy, in other words, large corporates have customer debt. Because creditors have greater confidence in large corporate, so larger companies pay fewer dividends, to borrow more than their capital.

Denis and Osobov (2008) in their study titled “Why do institutions distribute profit?” studied variations of inherent desire to pay dividends in the years 1994 to 2002. They examined the relationship between profitability, growth opportunities, firm size and capital gained between the companies paying the dividends and companies not paying dividends in America, Canada, Japan, Germany and France. They concluded that the dividend is influenced by size, profitability, growth opportunities and capital.
Anil et al., (2008) tried to determine the factors influencing dividend policy in India. The research was conducted for information technology (IT) firms during the period 2000 to 2006. In this study, profitability, cash flows, taxes and growth opportunities were considered as the independent variables and dividend policy as the dependent variable in regression equations. The results show that profitability and cash flow have a positive impact on dividend policy, but tax and growth opportunities have a negative impact on dividend policy.

Nizar (2007) studied the impact of the agency problems, ownership structure, means of signaling, growth and profitable investment opportunities as independent variables on dividend policy. They found that age, size, profitability and leverage have a significant positive correlation with the dividend policy, but ownership structure has no significant relationship with dividend policy. His research also supports agency theory.

Kanwer (2003) studied about the factors influencing dividend policy in Pakistan. Data was collected from 317 companies listed in the Stock Exchange of Pakistan in the form of 13 industries and analyzed using logistic regression. Variables of the research include firm size, retained earnings, investment opportunities and signaling aspect of the dividend. The results show that there is a significant negative relationship between the retained earnings each year and dividends. Moreover, available investment opportunities have a significant impact on the company's dividend policy.

Ling et al., (2008) in reviewing the factors affecting the dividend of 100 companies listed on the Stock Exchange of Malaysia found that profitability, firm growth, leverage, firm size, and distribution of shares are of the decisive factors affecting the dividend payout of companies. They found that the profitable companies and with less risk than have higher dividend payout compared to other companies.

Barkley et al., (2006) carried out a study entitled “The determinants of corporate leverage and dividend policy.” They discuss three factors as potential determinants in the company's dividend policy, (1) the extent of investment opportunities, (2) the effects of messaging profit, and (3) firm size. In their model, yields of the dividends were considered as an alternative variable to dividend policy.

Kuwari (2009) examined the relationship between ownership structure, free cash flow, growth opportunities, financial leverage, business risk, and profitability with the dividend policy. He found a significant relationship between ownership, size and profitability with dividend policy. Nevertheless, his research showed a poor relationship between free cash flows, growth rates and dividend policy with business risk.

Saeedi and Behnam (2010) examined eleven factors in their study to review the dividend policy. These variables include the leverage, firm size, dividend last year, investment opportunities, cash flow from operating policies of the company, average interest paid by competitors, the inflation rate, the percentage of free float share, the average growth rate of the past five years and earnings per share where the significance of factors firm size, dividends paid in the past year, investment opportunities, the expected profit for next year and inflation were confirmed, and the significance of the relationship with other variables was not observed.

Jahankhani and Ghorbaani (2005) in their study sought to identify and explain the factors that determine the dividend policy.

They collected the information from 63 firms for over a period of six years. The study results show that the corporate dividend policy follows a random walk. Moreover, due to confirmation of messaging theory, it is expected that if a company has high growth, they payout more dividend. Size, investment opportunities, financial structure, risk and financial leverage of the company are of other cases that play a role in explaining the dividend policy of listed companies.

Garmarudi (2005) in his study entitled “Studying the effect of agency cost on dividend policy of companies listed in Tehran Stock Exchange” studied 189 non-financial companies for the period from 1997 to 2001. His results showed that the ratio of common shareholders and free cash flow have a positive relationship with dividends ratio.

Alizadeh (2001) in a study entitled “Studying the relationship between dividend changes and changes in cash flow” examined the information benefit of cash flows in anticipation of the dividend. In his study, a
hypothesis on relationship between dividend changes and cash flow changes was proposed. He considered the confirmation of this hypothesis as haphazard and relying on the research findings as to be improper.

In the research by Hashemi and Rasaiian (2009), the results showed that at 95 percent level of confidence there is no significant relationship between corporate governance, company size and growth opportunities with dividend policy of listed companies on Tehran Stock Exchange. The profitability has a significant positive relationship with company's dividend policy.

In Pourheydari and Khaksaari study (2008), the results of the research showed that the most important factor determining the dividend policy in listed companies of Tehran Stock Exchange is the company's liquidity situation. The findings also showed that the stability of the company's profitability and financial leverage degree has no role in determining dividend policy. This study shows that there is a significant positive relationship between the existence of profitable investment opportunities and distribution of dividend.

Asadi and colleagues (2008) examined the relationship between profitability and liquidity and its impact on dividends from 1997 to 2003 and the study sample consisted of 49 companies listed in Tehran Stock Exchange. In this study, FBS as an indicator of profitability and net cash flow and dividend paid were considered as measures of liquidity in the regression equations. The results suggest that there is a strong relationship between profitability and dividends. Nevertheless, there is a weak relationship between liquidity and dividend policy.

**Research Hypotheses**

The first hypothesis: there is a significant relationship between institutional ownership payment of dividends (dividend policy) of the firms listed in the Tehran Stock Exchange.

The second hypothesis: there is a significant relationship between corporate profitability payment of dividends (dividend policy) of the firms listed in the Tehran Stock Exchange.

The third hypothesis: there is a significant relationship between business risk and payment of dividends (dividend policy) of the firms listed in Tehran Stock Exchange.

The fourth hypothesis: there is a significant relationship between tangible assets and payment of dividends (dividend policy) of the firms listed in the Tehran Stock Exchange.

The fifth hypothesis: there is a significant relationship between liquid assets and payment of dividends (dividend policy) of the firms listed in Tehran Stock Exchange.

The sixth hypothesis: there is a significant relationship between growth opportunities and payment of dividends (dividend policy) of the firms listed in Tehran Stock Exchange.

The seventh hypothesis: there is a significant relationship between firm size and payment of dividends (dividend policy) of the firms listed in Tehran Stock Exchange.

**MATERIALS AND METHODS**

**Research Methodology**

Regarding the goal, this research is an academic or library research mainly carried out through the study of books, periodicals, documents and their analysis and comparison (Farshadgohar and Shahidi, 2002). Due to these features, the present study is applied research. In addition, this research is a descriptive regression study and data required was collected by documents related to the financial statements of companies in the Tehran Stock Exchange. F and Hausman tests were used to select the best model from among conventional panel data, fixed effects and random effects. To estimate descriptive statistics and the parameters of the model and statistical inference and analysis EXCEL and EVIEWS have been used.

**Study Population and Sample**

In this study, population includes all companies listed on the Stock Exchange in Tehran. To select the sample, elimination method is used. The sample includes companies listed in Tehran Stock Exchange during the period of 5 years from the March 2008 to March 2013 that have the following conditions:

1) The intended companies should be a member the stock exchange from beginning to end of the study.

2) The intended companies should not be of the banks, financial institutions, and investment companies, financial intermediaries, holding companies, banks and leasing.
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3) The stocks of the companies should be traded during these years on the stock exchange.
4) The companies should not have activity stop during the investigation period.
5) The number of companies trading day should not be less than 10 times a year.
6) During 2007 to 2012, the company should not have fiscal year change.
7) Their financial year should be 20 March of each year.

In this study, the sample consists of 109 companies.

Research Model

In this paper, pooled model of regression analysis has been used as below:

\[
DPO_{it} = \pi_0 + \pi_1 PIO + \pi_2 ROE + \pi_3 Br + \pi_4 TANG + \pi_5 LIQ + \pi_6 MB + \pi_7 Size + \pi_8 IND + \mu_{it}
\]

Where \( y_{it} \) is:
- DPO = the ratio of interest payments, which is measured by the ratio of dividend per share to earnings per share
- \( \alpha \) = intercept of the firm \( i \) at time \( t \)
- \( \beta \) = linear regression coefficients vector
- PIO= Percentage of institutional ownership
- ROE= Return on equity: Net profit to equity
- BR= Standard deviation of return on assets of the company's net profit to total assets
- TANG= Ratio of tangible fixed assets: Fixed assets to total assets
- LIQ= Current ratio: Current assets to current liabilities
- MB= Ratio of market value to book value: the market value to book value of the assets
- SIZE= Size: the natural logarithm of total assets
- IND= this is the dummy variable that takes number one, when the company is a manufacturing one and takes zero when the company provides services.

Checking Autocorrelation of the Model

To verify the absence of autocorrelation in the model Durbin-Watson statistic is used. This statistic, based on the findings of Table 5, is 2.059. According to the statistics obtained, it can be said that in the expressed model the lack of correlation between the residuals is accepted.

Test of Significance of the Fixed Effects Model

To test the significance of the fixed effects model, two test of Hausman and F-statistic tests should be used.

F-statistic Test

<table>
<thead>
<tr>
<th>Description</th>
<th>Statistics value</th>
<th>Degree of freedom</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section F</td>
<td>14.996173</td>
<td>(108,428)</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Hausman test

<table>
<thead>
<tr>
<th>Description</th>
<th>Statistics value</th>
<th>Degree of freedom</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section F</td>
<td>35.696665</td>
<td>8</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Based on the results of the two tests (F and Hausman) probably obtained in both tests is less than 5% and therefore in the regression model, fixed effects method should be used.
RESULTS AND DISCUSSION

Research Findings

The Results of Descriptive Statistics

For evaluation of general and basic information of the variables to estimate the model, their detailed analysis and understanding of the research population, familiarity with descriptive statistics related to the variables are required.

Summary of descriptive statistical properties related to the variables used in this study is given in Table 3. Reported statistics include indices and central criteria including mean, median and dispersion indices including variance and standard deviation of the variables used in this research.

Table 3: Results of descriptive statistics used in this study

<table>
<thead>
<tr>
<th>Type of variable</th>
<th>Variable</th>
<th>Average</th>
<th>Median</th>
<th>Variance</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent</td>
<td>DPO</td>
<td>0.1294</td>
<td>0.0870</td>
<td>0.0146</td>
<td>0.1208</td>
</tr>
<tr>
<td>Independent</td>
<td>PIO</td>
<td>0.4426</td>
<td>0.3991</td>
<td>0.1179</td>
<td>0.3433</td>
</tr>
<tr>
<td></td>
<td>ROE</td>
<td>0.0817</td>
<td>0.0417</td>
<td>0.0272</td>
<td>0.1651</td>
</tr>
<tr>
<td></td>
<td>BR</td>
<td>0.1815</td>
<td>0.0938</td>
<td>0.1301</td>
<td>0.3607</td>
</tr>
<tr>
<td></td>
<td>TANG</td>
<td>0.5600</td>
<td>0.5514</td>
<td>0.0239</td>
<td>0.1544</td>
</tr>
<tr>
<td></td>
<td>LIQ</td>
<td>0.8419</td>
<td>0.8488</td>
<td>0.0131</td>
<td>0.1144</td>
</tr>
<tr>
<td></td>
<td>MB</td>
<td>1.4570</td>
<td>1.2495</td>
<td>0.9166</td>
<td>0.9574</td>
</tr>
<tr>
<td></td>
<td>LN SIZE</td>
<td>12.4225</td>
<td>12.3231</td>
<td>2.0205</td>
<td>1.4214</td>
</tr>
<tr>
<td>Control</td>
<td>IND</td>
<td>0.2923</td>
<td>0.0000</td>
<td>0.2072</td>
<td>0.4552</td>
</tr>
</tbody>
</table>

The Results of Hypothesis Testing

According to the results of testing of the main model as can be seen from the table, P-Value related to F (prob (F-statistic)) indicates that the total regression is significant, and equal to 0.0000 that shows the model is significant at 99 percent level of confidence. The coefficient of determination of adjusted R^2 is equal to 0.959 indicating that almost 96% of the variability of the dependent variable can be explained by the variables of the model.

Table 4: Estimate of research model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>SD</th>
<th>T statistic</th>
<th>P-Value</th>
<th>Type of relation</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-0.123714</td>
<td>0.027718</td>
<td>-4.463372</td>
<td>0.0000</td>
<td>Significant negative</td>
</tr>
<tr>
<td>PIO</td>
<td>-0.681020</td>
<td>0.206952</td>
<td>-3.290719</td>
<td>0.0011</td>
<td>Significant negative</td>
</tr>
<tr>
<td>ROE</td>
<td>-0.013542</td>
<td>0.016026</td>
<td>-0.845029</td>
<td>0.3986</td>
<td>Insignificant</td>
</tr>
<tr>
<td>BR</td>
<td>0.004264</td>
<td>0.007713</td>
<td>0.552831</td>
<td>0.5807</td>
<td>Insignificant</td>
</tr>
<tr>
<td>TANG</td>
<td>0.014286</td>
<td>0.005535</td>
<td>2.581125</td>
<td>0.0102</td>
<td>Positive significant</td>
</tr>
<tr>
<td>LIQ</td>
<td>0.083914</td>
<td>0.014879</td>
<td>5.639619</td>
<td>0.0000</td>
<td>Positive significant</td>
</tr>
<tr>
<td>MB</td>
<td>0.053383</td>
<td>0.001426</td>
<td>37.42691</td>
<td>0.0000</td>
<td>Positive significant</td>
</tr>
<tr>
<td>LN SIZE</td>
<td>0.008166</td>
<td>0.001340</td>
<td>6.091609</td>
<td>0.0000</td>
<td>Positive significant</td>
</tr>
<tr>
<td>IND</td>
<td>0.001536</td>
<td>0.001579</td>
<td>0.972834</td>
<td>0.3312</td>
<td>Insignificant</td>
</tr>
<tr>
<td>R^2</td>
<td></td>
<td></td>
<td>Deviation from the mean regression</td>
<td>F statistic</td>
<td>P- Value of F statistic</td>
</tr>
</tbody>
</table>

Statistics | 0/967 | 0/959 | 0/060 | 110/9 | 0/0000 |

Discussion and Conclusion

1. There is a significant negative relationship between institutional ownership and dividend payout ratio (dividend policy) in 109 selected companies in the Tehran Stock Exchange that is consistent with research.
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2. There is no significant relationship between profitability and dividend payout ratio (dividend policy) in 109 selected companies in the Tehran Stock Exchange.

3. There is no significant relationship between the commercial risk and payout ratio (dividend policy) in 109 selected companies in the Tehran Stock Exchange.

4. There is a significant negative relationship between the tangible assets and dividend payout ratio (dividend policy) in 109 companies listed on the stock exchange that is consistent with research findings of Alnajjar and Hussainey (2009).

5. There is a significant positive relationship between liquidity and cash payout ratio (dividend policy) in 109 selected companies in the Tehran Stock Exchange, which is consistent with research findings of Pourheydari and Khaksari (2008), Anil and Kapoor (2008), Amidu and Abor (2006), Rekabdar (2009) and Garmrudi (2005).

6. There is a significant positive relationship between growth opportunities and dividend payout ratio (dividend policy) in 109 companies listed in Tehran Stock Exchange, there is a significant positive relationship is consistent with the findings of Denis and Osobov (2008).

7. There is a significant positive relationship between firm size and payout ratio (dividend policy) in 109 selected companies in the Tehran Stock Exchange, which is consistent with the findings of Chai and Suh (2009), Ahmed and Javid (2009), Fama and French (2002), Wu and colleagues (2008), Dhanani (2005), and Eqhrol and Wu (Aggarwal and Dow, 2010).

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