

## Determinants of Dividend Policy of Listed Companies in Tehran Stock Exchange

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### ABSTRACT

Dividend is always one of the most controversial topics in financial management. Many theories associated with the Company's dividend policy are to seek review of certain financial ratios of firms in different industries is the cash dividend yield. The study of 12 industries in the Territory (2003-2007) is selected randomly. The sample consists of 80 firms were selected by the FA. For data analysis and multiple regressions method was used. The results show that the variable profit before tax, interest, total assets, the ratio of annual sales growth and return on a cash earnings before dividends are yielding significant direct effect. Also, the ratio of market value to book value of the cash dividend yields is inversely related.

**KEYWORDS:** dividend policy, the Tehran Stock Exchange.

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### INTRODUCTION

Dividend policy is one of the most important issues in financial management because dividends represent cash payments of companies and one of the most important choices and decisions facing managers is considered. (Baker and Powell, 2000)

The manager must decide how much of a profit sharing company or other form of retained earnings, return on investment to the company.

The payment of dividends will directly benefit the shareholders, the company's accumulated profits the ability to take advantage of growth opportunities decrease (Baker and Powell, 2000).

The dividend yield of cash and cash by being a tangible object, a special place with some of the stakeholders have participated.

The potential users of financial information are keen to make money and sometimes be distributed among the shareholders are informed.

The potential users of accounting information are interested in the ability to create money, and sometimes it can be distributed among the shareholders are informed. These data not only provide a clear picture of the present situation, but also provides the possibility to estimate and assess its future, which undoubtedly is important in their decision making. The importance of this issue with corporate managers, the use of the information gained through the process of administration and evaluation of the performance of the market is crucial. Because of this issue, the attention of corporate managers can focus on something that is remembered as the dividend policy. We investigate the determinants of dividend policy is important.

### The expression

Earnings from the two aspects are debatable.

An important factor influencing the investment, the company is facing, and on the other hand, the dividend reduced internal resources and external financing needs are increasing.

On the other hand, many shareholders are seeking cash dividends. Therefore, the aim of maximizing the wealth managers, of those interests must always profitable opportunities to invest in R and balance. The dividend decision is made that the managers are very critical and important. There are many factors when making management decisions affecting dividend policy. Questions such as why firms pay dividends? The goal of failure to pay interest or dividends paid or the payment of profit sharing ratio is? What are the determinants of dividend policy affects management decisions? Among the questions that have attracted many experts and analysts.

During the last decade a lot of research to identify the determinants of dividend policy is carried out. The research took place within the organization and outside the organization, there are various factors that play a role in determining the dividend policy of the company directors and each of them have a special importance. Due to the

lack of investigations in Iran, in this study we examine the determinants of the dividend policy of listed companies in Tehran stock exchange is.

### **Background research**

Bashir R: His master's thesis in 78 years, to examine the effect of liquidity on the dividend is paid to the private company in the textile industry. He realized a full review of the liquidity situation in the textile industry and its relationship to the proposed dividend. The results confirm the relationship between liquidity and dividend is that in some years has been associated with oscillations. Finally we can say at the 10% significance level, all operations are performed correctly and the hypothesis is accepted. The liquidity situation will affect the dividend. (Bashiri, 1999)

### **Mastorey research**

He is between 68 and 82 in their study investigates the relationship between dividend policy and firm value payments in Tehran Stock Exchange. The results indicate that investors demand for the firm's dividend decisions affect managers. Significant effects among different industries and individual firms were also studied. The results showed that investor demand for dividend has on the behavior of managers. (Covered, 2006)

Kanval research and Svjata

Kanval and Svjata in 2008 in a paper titled determinants of dividend to analyze the data received during the seven years from 2000 to 2006. After adjusting the correlation matrix of the regression analysis method to research carried out step by step. The results showed a positive relationship with profitability and cash flows are the dividend. The inverse relationship between the tax rate, sales growth and market value is the book value of equity, and there was no significant correlation between dividend policy and risk.) Kanwal anil and sujata kapoor. 2008)

### **Barrel and colleagues study**

In another study, the barrel and colleagues conducted several studies of possible factors as determinants of dividend policy discussed:

- 1 - 2 of investment opportunities - messaging effects of cash dividends
- 3 - The size of the company.

In their model output variable cash dividend as dividend policy alternatives were considered. In this study, the ratio of market value to book value of alternative investment opportunities. They take advantage of the messaging alternatives, in terms of the model was to examine the effects of the messages and the return on equity cash ... Sales of this variable as an alternative measure of variability were considered. (Barelay, M. y. Et. Al, winter 1995)

### **This Bynr**

Bynr study was conducted as determinants of dividend policy and the payment of test models in previous studies. The research results reveal that Swiss companies each year Dividend Yield Dividend yield is related to the previous year. Meanwhile, the Swiss investment opportunities and firm size in firms is inversely related to income distribution.

(Beiner Stefan june 2001)

### **Hypothesis:**

Assumptions to be defined.

- 1 between variable profit before tax and interest and dividend policy are related to the total assets.
- 2) There is a relationship between risk and dividend policy.
- 3) The corporation tax to the profit before tax and dividend policy is related.
- 4) The Company's annual sales growth and dividend policy are related.
- 5) The ratio of market value to its book value and dividend policy are related.

## **MATERIALS AND METHODS**

Descriptive research methodology used in this study (correlation) is. Correlation analysis is a statistical tool that can be used by other variable rate to a variable; it is relevant to linear measure.

Regression analysis of the correlation analysis usually utilizes. Because the goal of the relationship between financial ratios and returns on cash dividends. The purpose of this research is applied, as in applied research; we seek answers to the problems raised.

**Community sample:**

Since the firms listed in Tehran stock exchange has been selected as the population for the selection of sampling was used to knockout. Population so that only companies which meet the following criteria had to be included in the sample.

- 1 - In order to achieve homogeneity of the number of firms in the sample studied, and reliable information and coverage of the study period before 2003 are listed.
- 2 - Up to 3 months of deadlock companies
- 3 - In order to eliminate the effects of seasonal increased consistency of reporting period comparative financial information is finishing in March.
- 4 - Examples of companies, investment companies, holding, banks and financial Intermediate ... not because of their activities in other industries have different companies.
- 5 - Typical companies with taxable profits are bad; therefore the companies are not in the realm of research.
- 6- During the financial year fiscal year may not be changed or altered activity given the circumstances, for the sample of 436 companies in Tehran Stock Exchange, 80 companies were selected as samples.

**Variables:**

The main dependent variable in this study, the dividend policy of the company is 80. This variable calculation formula is derived using the following formula:

$$Dy_t = \frac{DIV_t}{\frac{Pth + Ptl}{2}}$$

Represent respectively the lowest and highest prices of each fiscal period. Cash dividends per share represent the consumer. (Bemstein, Leopard, 1989)

Independent variables and how they are calculated.

In this study, the five most important financial ratios that is used with the information contained in the financial statements of companies listed on the exchange, calculated as follows:

Table (1) factors and how they are calculated

Factors	Calculate
1. Before interest and taxes to total assets	Earnings before interest and tax book value at end of year book value of total assets at end of year
2. $\beta$ Risk	$\beta = \frac{cov(R_j, R_m)}{S_m^2}$ Covariance of stock returns and market returns  $cov(R_j, R_m)$ Variance stock of market returns $S_m^2$ Variance of market returns $M_0 = (1 + R_m)^n = M_1 R_m$ The $M_0$ index m indicates the beginning of the period At the end of the period $M_1$ During the study period N length study period $R_m$ Average market return during the study period
3. Net profit before tax of the tax	Tax book value at year-end to year-end book value of net profit before tax
4. Annual sales growth rate	$\frac{sit - sit-1}{sit-1} = \text{Annual sales growth rate}$ Sit-1= Buy book value at end of previous year SIT= Book value at year-end sales
5. Market value to book value of the share	Number of shares $\times$ price to book value of equity

**Method of data analysis:**

Descriptive statistics for data analysis and mining, SPSS software Views software was used to extract inferential statistics. Using panel data and time series data, cross-sectional study was conducted with a multiple regression model. And then tested using the Pearson Test f, t hypotheses was analyzed.

**Test hypotheses**

**The first hypothesis tests**

The efficiency dividend and profit before interest and tax to total assets is significant. According to the table, (2) significant level (0.000) indicates that the overall model verification cameras Watson statistic measures ANOVA showed no correlation was not independent of (additional) assumptions in the model first. According to Table (1) shows a significant level of both independent variables are significant. The t-statistics of the dependent variable explained by the effect they are approved. Return of cash dividends prior year direct impact on the efficiency of cash earnings before tax and interest to total assets ratio is also direct. According to figure 10, more than 23% of the variation in the dependent variable (return of capital dividends this year) is described by two independent variables in this model. The first hypothesis is confirmed by the foregoing arguments.

Table 1): regression coefficients of the first hypothesis

Model components	Coefficient ( $\beta$ )	Std. Error	Statistics t	Significant level
Constant (intercept)	251306%	21344%	11.77404	000%
Earnings before interest and taxes to total assets	58200%	13193%	4.411611	000%
DPS return period of $Y_{(t-1)}$	414538%	517990%	8.002775	000%

Source: Research findings

Table (2): significant test of the first hypothesis model

Coefficient ( $R^2$ )	Coefficient (Ad $R^2$ )	Statistics f	Significant level(sig)	Statistics vatson
.230736	.225867	47.39107	0.0000	2.06

Source: Research findings

According to the above tables, the final model is arranged as follows:

$$Y_{i,t} = 0.251306 + 0.058200X_{i,t} + 0.414538Y_{i,t-1}$$

In which:

$X_{i,t}$  = profit before tax and interest

$t-1$  In yield  $i$  = Yield dividends in  $y_{i,t-1}$

$t$  In yield  $i$  = Yield dividends in  $y_{i,t}$

**The second hypothesis test**

There is a significant relationship between risk and return dividends. As you can see in the table below:

So that the coefficients of the intercept and return dividends for a period before being approved with 99 percent confidence. Risk ratio with 90% confidence coefficient is not significant ... the model is equal to 18% to 18% of the variability is explained by the independent variables. F value of the model and the significance (sig) All models can be seen that this value (0.000) was smaller than 0.05, and hence the whole model is confirmed statistically.

Table (3): regression coefficients of the second hypothesis

Model components	Coefficient ( $\beta$ )	Std. Error	Statistics t	Significant level
Constant (intercept)	185977%	19266%	9.652871	000%
Earnings before interest and taxes to total assets	26666%	21605%	1.234277	21800%
DPS return period of $Y_{(t-1)}$	442792%	52873%	8.374625	000%

Source: Research findings

Table (4): significance test of the hypothesis model

Coefficient ( $R^2$ )	Coefficient (Ad $R^2$ )	Statistics f	Significant level(sig)	Statistics vatson
187149%	181970479%	36.14734	0000%	2.26

Source: Research findings

**The third hypothesis test**

Between cash income and corporate tax returns to profit before tax is significant. As can be seen, the coefficient of the intercept and the cost of capital for a pre-approval is 99%. But with the 90% corporation tax to the profit before tax is not significant. Determining factor of the model is equal to 19%. Thus 19% of the variability is explained by the independent variables. F value of the model is significant. It is noted that this value is smaller than 0.05. Therefore, the whole model is confirmed statistically.

Table (5): The third hypothesis, regression coefficients

Model components	Coefficient ( $\beta$ )	Std. Error	Statistics t	Significant level
Constant (intercept)	.211256	.020609	10.25069	0.000
Earnings before interest and taxes to total assets	.014226	.008840	1.60929	.1086
DPS return period of $Y_{(t-1)}$	.0441871	.052749	8.376823	0.000

Source: Research findings

Table (6): significance test of the third hypothesis model

Coefficient ( $R^2$ )	Coefficient ( $Ad R^2$ )	Statistics f	Significant level(sig)	Statistics vatson
.191898	.18675	37.28242	0.0000	2.29

Source: Research findings

**The fourth hypothesis testing**

Between cash dividend yielding companies listed on the Stock Exchange of annual sales growth, there is a significant relationship.

Significance level of the data table (7) for the variable 0496/0 is the (05/0) less. So statistically, with 95% confidence, the relationship between the quantity t is also revealed. Due to the significant test of the model showed that the model was statistically significant. The significance level (0.000) subs (0.05), respectively.

Suppose H1 is therefore accepted. So we can say with 99% confidence that the estimated model is significant.

Table 7: Coefficients of regression for fourth hypothesis

Model components	Coefficient ( $\beta$ )	Std. Error	Statistics t	Significant level
Constant (intercept)	.007339	.104105	.070492	.94380
Earnings before interest and taxes to total assets	.2883510	.135871	11.276870	.0496
DPS return period of $Y_{(t-1)}$	.437839	.052583	8.326560	0.000

Source: Research findings

According to the above tables, the final model is arranged as follows:

$$Y_{i,t} = -0.007339 + 0.2883510X_{i,t} + 0.437839Y_{i,t-1}$$

In which:

Y = profit before tax and interest

t In yield i = Yield dividends in  $y_{i,t}$

t-1 In yield i = Yield dividends in  $y_{i,t-1}$

Table (8): significance test of the fourth hypothesis model

Coefficient ( $R^2$ )	Coefficient ( $Ad R^2$ )	Statistics f	Significant level(sig)	Statistics vatson
.412	.401	161.58	0.0000	2.26

Source: Research findings

**The fifth hypothesis testing**

Between return and market value of cash dividends to its book value, there is a significant relationship. Similarly, it can be seen, there are also a factor in the independent variables are all statistically significant. So that the coefficient of the intercept and the cost of capital in a prior period (99%) and the ratio of market value to book value which is significant with 95% confidence. Coefficient of determination for the model was 19% and hence 19% of the change in the dependent variable, is explained by the independent variables. F value of the model and the significance (sig) All models can be seen that this value (0.000) was smaller than 0.05, and hence the whole model is confirmed statistically.

The following chart shows the results.

Table (9): The fifth assumption of regression coefficients

Model components	Coefficient ( $\beta$ )	Std. Error	Statistics t	Significant level
Constant (intercept)	.194063	.017479	11.10270	0.000
Earnings before interest and taxes to total assets	-6.20	2.5007	-2.481595	.0136
DPS return period of $y_{(t-1)}$	.450738	.450738	8.605246	0.000

Source: Research findings

Table (10): A significant test of the fifth hypothesis model

Coefficient ( $R$ ) <sup>2</sup>	Coefficient ( $Ad R^2$ )	Statistics f	Significant level(sig)	Statistics vat son
.198312	.193254	39.20779	0.0000	2.30

Source: Research findings

It is hereby noted that the fifth research hypothesis was confirmed, and the ratio of market value to book value of equity and efficiency dividends and the reverse is significant.

**Conclusions**

**First hypothesis:**

Earnings growth will lead to higher stock prices, lower tax rates and capital gains tax rates than alternative cash dividends will be. Other income tax assets will not be paid until the sale of shares. Due to the effect of the time value of money, future taxes to pay for any footage that is less cost effective than that currently paid Card. Because of the tax advantages, investors may prefer stocks of companies that are distributing fewer dividends. If this is so, investors in similar circumstances, to pay a higher price for the shares of companies whose earnings are less divided. The capital market in India, clearly, this theory does not apply. (Weston, John Frederick, 1382).

Kanval Svjata in 2008 and negative association between earnings before interest and taxes to total assets and return on realized cash profits.

**Second hypothesis:**

Between risk (B (and dividend policy are related. The results show that there is no significant relationship between risk and return dividends.

Some companies have a high level of financial and operational leverage because they have a high risk due to lack of willingness to distribute profits. Because in finance from external sources with more constraints encountered. In 2008, the negative relationship between risk and Svjata Kanval (B (and dividend policy (efficiency dividends) realized.

**The fifth hypothesis:**

The ratio of market value to book value of its shares and dividend policy are related the results show that the market value of its equity book value and dividend policy has no inverse. Kanval and Svjata 2008, Bynr (2001), all of the negative relationship between stock market value to its book value and dividend policy (efficiency dividends) noted. The ratio of stock market value to its book value is greater than the desire for profit is distributed. According to the theory of investment opportunities, the greater the opportunity to invest in a company, its market value is more than the average book value, because stock prices against the company balance sheet, reflecting the intangible assets, such as opportunities growth companies are facing.

### **Suggestions for future research investigating**

- 1) Examine the relationship between corporate performance and dividend policy.
- 2) Relationship between structure and dividend policy of the company
- 3) Examine the factors affecting the decisions of managers in determining dividend policy.
- 4) Views of managers from different industries and their importance in relation to the determinants of dividend policy.

### **Research proposals**

#### **Recommendations arising from the research**

1. Managers should be careful with their decisions about efficiency dividends. In contrast, if the manager chooses the specific characteristics of the company in the last financial returns or the dividend policy would risk may be faced with negative market performance. For full information transparency of the public and stakeholders will be necessary to prevent the negative market reaction .
2. Government and its agencies as a shareholder in public companies, as well as other stakeholders interested in identifying factors and estimate the distribution companies will benefit. At the macroeconomic level, the economic analysis revolves around profitability and distribution of corporate profits, useful information on the propensity to invest or use in public and policymakers will economy .It also identifies the distribution of benefits and factors affecting the capital markets can be applied to some financial and economic policies that led to the desired position .At present plans for the offering portfolio (equity shares) to the low-income strata is very important, especially when stocks are low-income people and to provide a cash dividend of from income families. At the macroeconomic level, the economic analysis revolves around profitability and distribution of corporate profits, useful information on the propensity to invest or use in public and policymakers will economy.

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