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Influence of Tax Rate and Dividend Policy on Stock Price

Dadang Prasetyo Jatmiko

Abstract: **The study aimed at finding out: (1) the effect of tax rate and dividend policy on the stock price, (2) the effect of tax rate on the stock price, (3) the effect of dividend policy on the stock price, and (4) the effect of tax rate on the dividend policy. (A case study at PT. Telekomunikasi Indonesia, Tbk. during the period of 2001-2014). This study utilized a causal quantitative design involving fourteen (14) samples, such as an annual financial report of PT. Telekomunikasi Indonesia, Tbk during the period of 2001-2014. The samples were selected by using a purposive sampling technique. The data were analyzed by using path analysis in order to measure the extent of the contribution or the effect of independent variables on the dependent variable, both direct and indirect contribution, in relation to the other independent variables. The data were obtained from the secondary source, that is, the website of www.telkom.co.id.**

The results indicated that (1) the tax rate and dividend policy had an effect on the stock price for about 76,8%, (2) the tax rate had a positive effect on the stock price for about 32,6%, (3) the dividend policy had a positive effect on the stock price for about 17,5%, and (4) the tax rate had a positive effect on the dividend policy for about 31,3%.

Keywords: **tax rate, dividend policy, and stock price.**

1. INTRODUCTION

One of investment strategies that generate higher profits for investors is equity sharing. The return of the equity investment in particular is influenced by share's performance and market conditions. It is possible that the price of shares will help investors make decision wisely while allowing the company to increase market value (Nirmala, Sanju, and Ramachandran, 2011). Shares are securities as a proof of ownership towards a company (Hin, 2008). The profits gained from the stock price from the dividend will be balanced by the decline in the stock price due to the purchase of new shares, so shareholders can receive cash in the form of capital gains and shareholders' earnings are not affected by either current or future dividend policy (Tsing, 2008). The stock price is the nominal value of closing of ownership by a person or an institution in a company that applies regularly in Indonesia capital market (Kesuma, 2009:40). There is a theory mentioning the link between dividend policy and stock price. According to (Akbar Baig and 2010), while cash dividend increases, stock price also increases, and while cash dividend decreases, as a result, the stock price also declines, too. Therefore, dividend policy is required as it provides information to stakeholders on performance of the company and investments to be made to determine its future earnings. Dividend policy is unseparated part of the funding decisions made by the company. Dividend payout ratio determines the amount of retained earnings as a funding source; the more the retained earnings is, the lower the profit allocated for the dividend payout will be. Determination of the allocation of revenue as retained earnings and dividend payout is a prominent aspect in the dividend policy (Wachowicz, 2007:496).

The dividend is the share of profit to company shareholders in a certain period, that is, the company's revenue and the recommendations made by the Board of Directors of the company. Thus, if no profits are made, there will not be announcement for dividend; when profits are made, the company is obliged to pay corporate taxes including other taxes to the government. This is part of responsibility of a company especially in the attempt of earning much profit (Nnadi and Akpomi, 2008).

The obligation to pay taxes inevitably reduces earnings of a company, whether retained or distributed as dividends to shareholders. Some literature have attempted to identify important factors in the dividend policy formulation by the companyand unearthed some significant and recurring effects of the tax on the company's dividend policy (Nnadi and Akpomi, 2008).

Research conducted by (Nnadi and Apkomi: 2008) found a positive relation between dividend income taxes in favor of the first hypothesis (H1). The study also shows that there is a strong relationship between the dependent variable and the independent variable. Tax rate is an important determinant in the formation of policy dividends. In fact, the tax always emerges, whereas payable dividends given to each investor should not be taxable because the company has already paid taxes on the revenue; if investors are again obligued to pay tax on dividends received, there would be double taxation (Manarung, 2012).

The tax is a very fundamental case. Tax collection should be based on prevailing regulations. In the end, the burden of tax is on the people, thus taxe base and tax problem rate must go through the approval of people represented by House of Representative and then the results are poured in an act that must be obeyed by any party subject to taxation liabilities (Rahayu, 2010:23). The tax collection by government is carried out in such a way so as not to harm the community, therefore determining tax rate is required to bridge the gap between the government and society. In the end, there will be no party feeling aggrieved.

In the attempt to define tax rate, some types of tax rates are tax with proportional rate, which is the form of tax which percentage remains against any subject that is burdened with tax, so that the tax value is proportional to the amount the value taxed; fixed rate, it is when the tax rate remains, following the the amount of taxable object, so that the tax rate remains; progressive tax is when the percentage of the tax rate becomes higher, if the amount of taxable objects increases. (Waluyo dan Ilyas, 2003: 16)

If the capital gain is subject to taxation with lower rate compared to the tax for dividends, the shares have higher growth. On the contrary, if the capital gain is burdened with the same tax rate as the tax for dividends, the profit as capital gain will be reduced. However, tax for capital gain is better than tax for dividends, because the payment of capital gain tax is made after the stock sale, while tax on dividends is payable annually after dividends payout (Tsing 2008:286).

PT Telekomunikasi Indonesia, Tbk is a state-owned enterprise engaged in the field of telecommunications services and networks, and provides local dial, direct-long distance dial. PT Telekomunikasi Indonesia, Tbk is established for an unlimited period of time. The goals and objectives of the company are to operate a telecommunication network and organize activities related with communication and information services within Indonesian territory and therefore subject to the laws and regulations applicable in the country. With its status as a state-owned enterprise, whose shares are traded on the stock exchange, the company's majority shareholder is the government of the Republic of Indonesia, while the rest is controlled by the public. The company's shares are traded on the Indonesia stock exchange (IDX). As a multinational corporation engaged in the telecommunication services and networks in Indonesia, the company experienced the greatest increase and decrease in their financial reports. The following table describes the dividend policy followed with fluctuations in stock prices of PT Telekomunikasi Indonesia, Tbk. from 2009 to 2013.

Table 1 The Development of Tax Rate, Dividends Payout Ratio, Earnings Balance, and Stock Exchange of PT. Telekomunikasi Indonesia, Tbk. In the Period of 2009-2013

Year	Tax Rate		Dividends Payout Ratio (in percentage)		Earnings Balance	Stock Price	
2009	28%	↑	0,49	↓	21.130.459	9450	↑
2010	25%	↓	0,54	↑	26.571.000	7950	↓
2011	20%	↓	0,55	↑	31.717.000	7050	↓
2012	20%	-	0,55	-	37.440.000	9450	↑
2013	20%	-	0,55	-	39.141.000	9700	↑

The table above clearly displays the development of dividends and stock prices fluctuate every year. There is a phenomeon of ups and downs in the tax payout of PT Telekomunikasi Indonesia, Tbk, i.e. the year 2009, 2010 and 2011, but are not in accordance with the dividend on the year and contradict with the tax rate. This is contrary to the existing theory stating that the amount of distributed dividend will be followed with tax rate.

The table above also shows the increase of retained earnings at PT Telekomunikasi Indonesia, Tbk in 2009-2013 because the company's revenue or net profit at the end of the year was likely to rise and very influential to generate significant retained earnings for the company. The stock price of PT Telekomunikasi Tbk, in 2009, 2010 and 2011 declined as a result of the decrease in the company's ability to obtain profits within the period. Meanwhile in 2012 and 2013, the company's stock price has increased and brought more advantage to the company. The higher the company's stock price is, the greater the chances of the company to attract more investors. Meanwhile, Dividends Payout Ratio experienced a rise in 2010 and 2011. However, in 2009-2012, there were fluctuations in the stock price: from 9,450 to 7,950, and from 7,050 to 9,450. From year 2012 to 2013, the stock price increased again up to 9,700.

It is in line with the existing theory, that higher Devidend Payout Ratio will be followed with the increase in company's stock price. This will encourage investors to spend greater investment so that the company's stock price will rise.

Based on the abovementioned background, there are four problems formulated in this study:

(1) How is the influence of the tax rate and dividend policy against stock price of PT Telekomunikasi Indonesia, Tbk in the period of 2001-2014, (2) How is the influence of tax rate on the stock price of PT Telekomunikasi Indonesia, Tbk in the period of 2001-2014, (3) how is the influence of dividends policy on the stock price of PT Telekomunikasi Indonesia, Tbk in the period of 2001-2014, (4) How is the tax rate's influence on dividends policy of PT Telekomunikasi Indonesia, Tbk in the period of 2001-2014.

2. RESEARCH METHOD

This research was causal quantitative research. Causal quantitative research generalizes or explains the causal relationship and influence of a variable against other variables. The variables included in this study are i.e. independent variables, as variables that affect or become the cause of the emergence of dependent variables, while dependent variables are variables which are affected or appear as a result of the independent variables. Hypotheses in research are:

H1: There is an influence of tax rate and dividend policy on stock price of PT Telekomunikasi Indonesia, Tbk in the period of 2001-2014.

H2: There is an influence of tax rate on stock price of PT Telekomunikasi Indonesia, Tbk in the period of 2001-2014.

H3: There is an influence of the dividend policy on stock price of PT Telekomunikasi Indonesia, Tbk in the period of 2001-2014.

H4: There is an influence of tax rate on dividend policy of PT Telekomunikasi Indonesia, Tbk in the period of 2001-2014.

In accordance with the proposed hypotheses, this research employed an appropriate statistical analysis, namely path analysis. Suliyanto (2005) stated that path analysis is used to measure the amount of contributions or influences of independent variables on the dependent variables, both directly and indirectly through the relation with other independent variables. The reason of using path analysis is that in a structural relation, there is a causal relation between tax rate and the dividend policy which is applicable. In addition, the use of path analysis aimed to identify if there is an indirect tax rate influence on the stock price through the dividend policy.

Samples taken by the researcher were annual report of balance sheet and income statement data from 2001-2014 with several considerations:

1. Data were registered on the stock exchange during the year 2001-2014;

2. Data were in the form of annual financial reports in 14 years consecutively during the 2001-2014 and were already audited;

3. Data taken were 14 years from 2001-2006, which were made sample because in this period, there was a phenomenon that is necessary to research;

4. Samples were taken for 14 years, from 2001-2014, because they were considered respresentatative and qualified to be researched.

3. FINDINGS AND DISCUSSION

Path analysis was chosen to find out the influence of tax rate and dividend policy, either directly or indirectly, on stock price of PT Telekomunikasi Indonesia, Tbk within the period of 2001-2014. Based on the results of the path analysis statistical measurement using Statistical Package for Social Science (SPSS) 17.0 program for Windows, the results were obtained as detailed in Table 2 below.

Tabel 2 Output of Path Analysis regarding the Influence of X1 and X2 towards Y

No	Parameter	Coefficient	*p-value*	*Alpha* (α)	Result	Conclusion
1	Ryx_1x_2	0,877	0,000	0,05	Rejected Ho	There was a relation between X1 and X2 terhadap Y
2	$R^2yx_1x_2$	0,768	0,000	0,05	Rejected Ho	The influence of X1 and X2 on Y was 76,8%
3	Pyx_1	0,571	0,008	0,05	Rejected Ho	There was an influence of X1 toward Y
4	P^2yx_1	0,326	0,008	0,05	Rejected Ho	The influence of X1 on Y was 32,6%
5	Pyx_2	0,419	0,036	0,05	Rejected Ho	There was an influence of X2 on Y
6	P^2yx_2	0,175	0,036	0,05	Rejected Ho	There influence of X2 on Y was 17,5%
7	Px_2x_1	0,560	0,037	0,05	Rejected Ho	There was an influence of X1 on X2
8	$P^2x_2x_1$	0,313	0,037	0,05	Rejected Ho	The influence of X1 on X2 was 3,13%
9	$\varepsilon 2$	0,687	-	-	-	The influence of other factors on X2 was 68,7%.
10	$\varepsilon 1$	0,232	-	-	-	The influence of other factors on Y was 23,2%.

(Source: Appendix 3 and 4. SPSS output, Data were processed)

Based on Table 2, of the results of analysis which has been done, it is explained that collectively tax rate (X 1) and dividend policy (X) affected stock price (Y) of PT Telekomunikasi Indonesia, Tbk. Tax rate (X_1) influenced stock prices (Y), (X_2) dividend policy influenced stock price (Y), and tax rate (X_1) also influenced dividend policy (X_2) of PT. Telekomunikasi Indonesia, Tbk. The influence of each variable can be measured using path analysis. This method is to identify the effect of tax rate and dividend policy on stock price, either directly or indirectly, as explained in Figure 1 below.

ε1

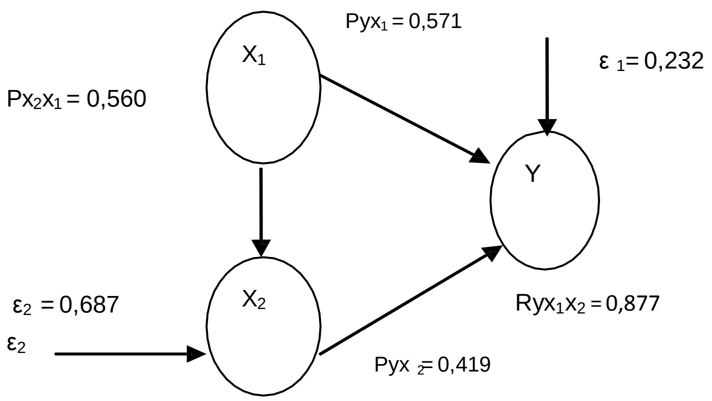

Figure 1. Influence of Variabel X1 and X2 on Y

The coefficient of direct and indirect influences of X_1 and X_2 on Y in this study can be seen in Table 3.

Table 3 The Coefficent of Direct and Indirect Influence of Tax Rate (X1) and Dividend Policy (X2) on Stock Price (Y)

Description	**Coefficient**	**Percentage**
Direct influence of X1 on Y	0,326	32,6%
Indirect influence of X1 on Y through X2	0,235	23,5%
Total of influence of X1 on Y	0,571	57,1%
Total of influence of X2 on Y	0,175	17,5%
Total of influence of X1 and X2 on Y	0,768	76,8%
Total of influence of other variables on Y	0,232	23,2%
Total	1,000	100%

Source: Appendix 5 and 6. SPSS Output, data were processed)

H1: There is an influence of tax rate and dividend policy on the stock price of PT Telekomunikasi Indonesia, Tbk.

The measurement results of the statistical test using path analysis in Table 2 show that the tax rate and dividend policy collectively affected the price of share in PT Telekomunikasi Indonesia, Tbk since the p-value R2yx1x2 = 0,000 < alpha 0,05. This means Ho was rejected; in other words, there was an influence of tax rate and dividend policy on stock price of PT Telekomunikasi Indonesia, Tbk.

In Table 2, it is obvious that the coefficient of determination of R2yx1x2 was 0,768. This denotes that 76.8% of the stock price in PT Telekomunikasi Indonesia, Tbk are influenced by tax rate and dividend policy simultaneously, while the rest (0,232 or 23.2%) are influenced by other variables not examined in this study.

H2: There is an influence of tax rate on stock price of PT Telekomunikasi Indonesia, Tbk

The measurement results of the statistical test using path analysis in Table 2 indicate that tax rate had an effect on the share price of PT Telekomunikasi Indonesia, Tbk since the p- value Pyx1 = 0,008 < alpha 0,05. This means Ho was rejected or tax rate had an influence on the stock price.

Table 2 also shows the influence of tax rate on stock price with Pyx1coefficient of 0,571 and it marks positively, which indicates that the relationship between tax rate and stock price was directly proportional. This means that any increase in the tax rate played a role in rising the stock price in PT Telekomunikasi Indonesia, Tbk. Table 3 shows the coefficients of tax rate influence on the stock price, that is, 0,326 or 32,6%. This means 32,6% of stock price was affected by tax rate.

H3: There is an influence of dividend policy on stock price of PT Telekomunikasi Indonesia, Tbk.

Based on the measurement results of the path analysis statistical test in Table 2, it shows that the dividend policy affected the stock price of PT Telekomunikasi Indonesia, Tbk since the p-value Pyx2 = 0,036 < alpha 0,05. This means Ho was rejected or dividend policy had an effect on stock price.

Table 2 shows the effect of dividend policy on stock price with Pyx2 coefficient of 1.806 and marks positively, indicating that the relationship dividend policy in stock price was directly proportional. This means that an increase in the dividend policy played a role in increasing the price of shares in PT Telekomunikasi Indonesia, Tbk. Table 3 also shows the coefficient of dividend policy variable on stock price was 0.175 or 17.5%, meaning that 17.5% share price was affected by dividend policy.

H4: There is an influence of tax rate on dividend policy of PT Telekomunikasi Indonesia, Tbk.

The calculation results of path analysis statistical test in Table 2 indicate that tax rate affected dividend policy at PT Telekomunikasi Indonesia, Tbk since the p-value Px2x1 = 0,037 < alpha 0,05. This means Ho was rejected or tax rate had an effect on the dividend policy.

Table 2 shows the relationship between the tax rate on a dividend policy with Px2x1 coefficient of 0,560, and marks positively. This indicates that the relation between tax rate and dividend policy was directly proportional. This means any increase in the tax rate played a role in increasing the dividend policy at PT Telekomunikasi Indonesia, Tbk. Table 3 shows the coefficient of effect of tax rate on the dividend policy that was 0.313 or 31.3%, which means that 31.3% dividend policy was influenced by the tax rate.

4. DISCUSSION

Based on the calculation results of path analysis using Statistical Package for Social Science (SPSS) 17.0 for Windows, it shows the tax rate and dividend policy simultaneously affect the price of shares at PT Telekomunikasi Indonesia, Tbk in the period of 2001-2014.

Research on the influence of tax rate on the stock price indicates that tax rate has a positive effect on the price of shares in PT Telekomunikasi Indonesia, Tbk. In hypothesis 1 (H1), it is concluded that 32,6% of stock price is affected by tax rate, thus when there is a rise in tax rate, it will be followed with rising share price, in this case progressive rate. Progressive rate shows that the higher the tax of an object is, the higher the percentage of the the tax will be. With an increase in the price of the shares of PT Telekomunikasi Indonesia, Tbk, it is possibile that the company will pay much higher tax because the share is the object of the tax. This means that the shares sold by the company are high, thus the percentage of the tax paid by the company is automatically high. High rate of tax that is paid will have an impact on the company's profit after taxed gain. The high tax rate leads to the decrease of profit earned by the company for dividend payout.

This research regarding the relation between dividend policy and stock price at PT Telekomunikasi Indonesia, Tbk shows a positive and significant influence, meaning that dividend policy is influenced by the stock price. In Hypothesis 2 (H2), it shows 17.5% of dividend policy is influenced by the stock price. When the dividend policy increases, the price of shares also increase, and vice versa. Stock price is affected by the growth rate of dividends; the amount of dividends payout will increase the value of the company or the stock price but greater dividends paid to shareholders will lead to reduction of the remaining funds used to enlarge the company or as an investment, because the retained earning is the source of fund for financing the company. As a result, the smaller retained earnings will decrease the growth of dividends, therefore, optimizing the amount of dividend distributed to shareholders is very important as the duty of financial manager. Dividend policy stipulated by PT Telekomunikasi Indonesia, Tbk is a corporate action that can be perceived as a certain sign to investors that eventually leads fluctuating the stock price. The rising stock price will cause investors to react in the capital market, namely by making high demand and supply on shares of PT Telekomunikasi Indonesia, Tbk so that the high stock price of PT Telekomunikasi Indonesia, Tbk that is already sold will have an impact on increasing the company's profits after tax. The company's intention for raising the stock price is to gain higher profit by the company, so that the dividend distributed to shareholders is also at the best rate. In addition, the high share price is used for payout of the regular dividend and extra dividend. In fact, extra dividend is a strategy of a company to earn more cash dividend in addition to the regular dividend. This is usually done if the company's revenue is increasing quite high, but is temporary in nature.

Furthermore, the results of the research regarding the influence of tax rate on dividend policy at PT Telekomunikasi Indonesia, Tbk show that tax rate affects positively on the dividend policy. It is proven by Hypothesis 4 (H4) that 31.3% of dividend policy is influenced by the tax rate. The tax rate is determined by the extent to which dividend policy is influential. If the dividend policy is intense, tax rate is also high. In fact, the tax always emerges in every investment, since every payout dividend is subject to tax, whereas the dividend received by the investors should not be taxable because the company has paid tax on the profit earned by the company. When investors are obligued to pay tax on dividends received, then double taxation emerges.

Even though the researchers have tried to design and develop research in such a way, there are still some limitations in this study; from the research model used, it is noted that the research variables used only can explain 76.8% factors, while the rest or 23.2% are determined by other factors not listed in this research. Hence, the research variables used are less able to explain the effects on stock prices.

5. SUMMARY

Based on research findings and discussions expressed above, some conclusion can be drawn as follows.

1. Hypothesis 1 stating that the tax rate and dividend policy have a positive influence on the stock price in PT Telekomunikasi Indonesia, Tbk in the period of 2001-2014 was accepted.

2. Hypothesis 2 stating that tax rate has a positive influence on the stock price at PT Telekomunikasi Indonesia, Tbk in the period of 2001-2014 was accepted.

3. Hypothesis 3 stating that the dividend policy has a positive influence on the stock price of PT Telekomunikasi Indonesia, Tbk in the period of 2001-2014 was accepted.

4. Hypothesis 4 stating that tax rate has a positive influence on the dividend policy at PT Telekomunikasi Indonesia, Tbk in the period of 2001-2014 was accepted.

6. SUGGESTIONS

Based on the aforementioned research results, discussions, and conclusions, several suggestions are given as follows.

1. The company is better to distribute low dividends than the high ones because they would be subject to a lower tax rate. The better the company retains and reinvests the profit for the company, the higher the possibility of the company to generate high profit growth in the stock price and a capital gain with low taxes to replace the high dividend tax.

2. The company should be able to stabilize and increase the dividend every year because it will greatly affect the company's stock price. When the company's stock price and dividends is improving every year, it is possible that the investors become interested in buying the stock of the company.

3. For the next research, it is expected to add other independent variables e.g. ROE (Return on Equity) as a tool to assess the stock price, economic and political conditions, as well as other financial performance indicators including profitability, solvency, or liquidity of companies in this study. This is necessary because in this research, there are still some limitations on the research model used, as it can only describe 76.8% of factors, while the rest or 23.2% are determined by other factors not included in this study.

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