

# Analysis of Financial Performance and Opportunity of Investment on Dividend Policy with Profitability As Moderating Variable in LQ45 Company Listed In Indonesia Stock Exchange

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## Abstract:

The research is to analyze the financial performance ie by Debt to Equity Ratio (DER), Total Asset Turn Over (TATO) and Investment Opportunity (IOS) on Dividend Policy moderated by Profitability. The methodology is based on the literature study method and documentation of the LQ45 in Indonesia during the period 2012-2017 that is 17 company with purposive sampling method. This research use Moderated Regression Analysis as a data of method of analysis. The results show that there is a significant positive relationship between TATO and DPR. Meanwhile, DER and IOS have a negative relationship to the DPR. Then, profitability is able to moderate TATO and IOS against Dividend Policy while profitability is not able to moderate the influence of DER on Dividend Policy. The implicit research was increase, the bigger the profit and the higher the dividend that relies on the creditor, so the variable can be the determinant variable for the investor in making the investment decision. For further research, it is suggested to add independent variables, ie, EPS and CR which represent the variable of financial performance.

*Keywords —Debt to Equity Ratio (DER), Total Asset Turn Over (TATO), Investment Opportunity Set (IOS), Dividend Payout Ratio (DPR), Return On Equity (ROE)*

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## I. INTRODUCTION

Companies can be said to run well if they have sufficient capital funding that comes from within the company (*internal*) or from outside the company (*external*). The condition of a company is very influential on the condition of the company's stock price. One of the factors that influence stock prices is the ability of the company to pay dividends which can ultimately affect investor interest and company value. Dividends are important factors seen by investors in deciding investments in a company, as well as being a tool for companies to attract these investors.

Dividend Policy (*Dividend Policy*) is part of the company's funding decisions involving the shareholders and companies with consideration profit earned on a the

last year can be distributed to shareholders as dividends or held in the form of detained labor (Simbolon&Sampurno, 2017). Dividend policy also plays an important and significant role in determining corporate value so that the tendency of dividend policy behavior is influenced by internal factors such as cash flow, investment opportunities, company liquidity and profitability, and also influenced by external factors such as macroeconomic factors, economic stability and growth, change technology and government regulations and regulations (Kaddumi& Al-Kilani, 2015).

*Dividend Payout Ratio* (DPR) is a proxy for dividend policy which is the percentage of profit that will be paid to shareholders as a cash dividend. DPR is a financial ratio that is often used by investors to find out

the results of their investments. According to Gumanti (2013), based on the theory *bird in the hand* which states that investors prefer cash dividends rather than promised *capital gains* in the future, this is because the provision of cash dividends is a form of certainty that reduces risk.

*Leverage* as measured by the *Debt to Equity Ratio (DER)* measures how much the company's ability to fulfill all long-term financial obligations. DER illustrates the comparison between the amount of debt and the amount of equity used as a source of business funding that is aligned with the theory *tax preference* that wants the dividend to be distributed in small amounts with the aim of maximizing the value of the company. Dewi & Tri (2015) states that the greater the DER indicates the capital structure of the business more utilizing the debts relative to equity.

*Total Asset Turn Over (TATO)* is one measure that measures how effective a company is describing asset turnover measured from the sales volume of a comparison to total assets. The greater the TATO, the better the company's turnover, which means that assets can rotate faster and earn profits so as to show more efficient use of total assets in generating sales, the benefits obtained by the company can also be increased.

*Investment Opportunity Set (IOS)* is a set of investment opportunities that are investment choices in the future and reflect the growth of assets and equity (Brigham & Houston, 2011). The IOS calculation in this study is proxied by *Market to Book Value (MBV)* which is a benchmark in determining how far a company chooses investment opportunities. The greater the company can manage its capital well, the greater the company's opportunity to grow and can attract investors to invest in the company (Ahmad, Dewi, & Umi, 2016).

Company profitability is an important factor that determines the dividend ratio, because the company's high profitability will increase the chances of dividend payments to reflect a healthy and solid financial position (Kaddumi & Al-Kilani, 2015). *Return On Equity (ROE)* shows the company's ability to generate net income by using its own capital available to owners or investors. The higher the ROE, the better the company is because this shows that the management of the company is able

to manage the company well so the opportunity to pay dividends is higher.

The selection of profitability as a moderating variable due to the dominant influence of profitability on company dividends in previous studies and the gap in the results of studies testing DER, TATO and IOS on the Dividend Payout Ratio has led to the presumption that the independent variable does not directly affect the dependent variable (DPR).

The sample companies are companies included in the category of 45 companies that have good financial conditions, growth prospects and high transaction value on the Indonesia Stock Exchange which is often called LQ45 in the period 2012-2017.

Regarding differences of opinion regarding results that directly affect profitability (ROE), also described *research gap* variables that directly affect the *Dividend Payout Ratio (DPR)*. The variable *leverage (DER)* used as a measure of dividend policy based on previous studies also has different results. Research conducted by Aisyah (2015) shows that DER has a positive effect on the DPR. But it is different from the results of a study conducted by Meilani & Amboningtyas (2016) and Putra & Mahfud (2017). Previous studies on the effect of *Total Asset Turn Over (TATO)* on the *Dividend Payout Ratio (DPR)* have different results. Studies conducted by Deitiana (2013) and Rahmawati, Saerang, & Rate (2014) produced a positive influence between TATO and DPR, while the results of a study from Nerviana (2015) stated the opposite, namely TATO had a negative effect on the DPR.

The results of the study of the effect of the *Investment Opportunity Set (IOS)* on the *Dividend Payout Ratio (DPR)* have different results. According to Pamungkas et al. (2017) and NLPP Sari & Budiarta (2016), IOS has a positive effect on the DPR while according to Sari, Muharam, & Sofyan (2014) and Purnami & Artini (2016), IOS has a negative influence on the DPR. According to Kaddumi & Al-Kilani (2015) and Simbolon & Sampurno (2017), *Return On Equity (ROE)* has a positive influence on the *Dividend Payout Ratio (DPR)*, while according to Pamungkas, Rusherlistyani, & Janah (2017), Ahmed (2015) and Jabbouri (2016) resulted in ROE having a negative influence on the DPR.

After observing the *research gap* in the previous literature review, the authors are interested in conducting research with the title of **Analysis of Financial Performance and Investment Opportunities on Dividend Policy with Profitability as a moderating variable in LQ45 Companies listed on the Indonesia Stock Exchange.**

Based on the background of the problem described, the formulation of the problem from this study is:

1. What is the effect of the *Debt To Equity Ratio*, *Total Assets Turn Over* and *Investment Opportunity Set* on *Dividend Payout Ratio* in LQ45 companies for the period 2012-2017?
2. How is the influence of *Debt To Equity Ratio*, *Total Assets Turn Over* and *Investment Opportunity Set* on *Dividend Payout Ratio* moderated by *Return On Equity* in LQ45 companies for the period 2012-2017?

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## II. RELATIONSHIP BETWEEN VARIABLES AND HYPOTHESES

### A. Relationships between Leverage on Dividend Policy

*Leverage* proxied by *Debt to Equity Ratio* (DER) is a ratio that compares the total debt with the total equity of the company used as a source of business funding. DER reflects the company's ability to fulfill all its obligations in paying debt. Dewi & Tri (2015) states that the greater the DER value indicates that the business capital structure uses more debt relative to equity, so that greater dividend payments can increase the ability of opportunities to enlarge capital from external sources. This is supported by previous research from Laim, Nangoy, & Murni (2015) and Simbolon & Sampurno (2017) which stated that DER had a positive effect on the DPR.

H<sub>1</sub> : *Debt To Equity Ratio* (DER) has a positive effect on DPR

### B. Relationship between Total Asset Turn Over (TATO) to Dividend Policy

Total Asset Turn Over (TATO) is an activity ratio that compares the sales with total assets of a company that describes the total assets turnover speed in certain periods that are in accordance with the theory of dividend policy and are useful for maximizing the value of the company. Companies that have high efficiency tend to be able to produce higher net income so that the more efficient the activity level, the greater the dividend policy set by the company (Sulaiman, 2016). This states that there is a positive relationship between TATO and DPR which is supported by research from Aisyah (2015) and Purnami & Artini (2016).

H<sub>2</sub> : Total Assets Turn Over (TATO) has a positive effect on the DPR

### C. Relationship between The Investment Opportunity Set (IOS) to the Dividend Policy

Investment Opportunity Set (IOS) which is proxied by *Market to Book Value* (MBV) is an investment opportunity set that is an investment choice in future and reflects the growth of assets and equity. IOS is the value of the company, the value depends on expenditures set by management in the future, investment options that are expected to produce *return* a greater. If the company has high growth and gets a good investment opportunity, it will tend to hold back the profits earned for investment financing. When the amount of *cash dividend* (cash dividend) increases, the funds available for reinvestment are reduced, so that the expected growth rate for the future becomes low and emphasizes stock prices (RR Sari et al., 2014). There is a positive relationship between IOS and DPR, this is supported by research by Pamungkas et al. (2017) which states that IOS has a positive influence on the DPR.

H<sub>3</sub> : *Investment Opportunity Set* (IOS) has a positive effect on the DPR

### D. Relationship between Profitability to Dividend Policy

*Return On Equity* (ROE) chosen as a proxy for profitability is a ratio that compares the amount of net income after tax and equity. This ratio measures

the ability of a company to generate profits with equity capital from investors. The higher the ROE value, the better the company (Simbolon&Sampurno, 2017). This shows that company management is able to manage the company well so that the opportunity to pay dividends to investors is higher. Research from Kaddumi& Al-Kilani, (2015) and Simbolon&Sampurno (2017) states that ROE has a positive influence on the DPR. In this case it can be said that ROE can be a moderating variable that strengthens between the relationship of other variables to the Dividend Payout Ratio.

**E. Relationship between Leverage to Profitability**

*Debt to Equity Ratio* (DER) is a proxy variable of the debt capital ratio that describes the extent to which owner's capital can cover debts on outsiders and DER is a ratio that measures the extent to which the company is financed by debt. The greater the proportion of debt used, the higher the burden that must be borne by the company so that the higher the DER of the company shows the greater the company's dependence on outsiders and the greater the risk level of the company. However, the *theory trade off* explains that debt is permissible as long as the level of profits obtained exceeds the cost of debt (Wardhana, 2011). This shows that DER can have a positive effect on ROE, this is supported by research from Pongrangga, Dzulkirom, &Saifi (2015) and Prastika (2013) which states that DER has a positive influence on ROE.

H<sub>4</sub> : *Return On Equity* (ROE) moderates the effect of *Debt To Equity Ratio* (DER) on DPR

**F. Relationship between Total Asset Turn Over (TATO) to Profitability**

*Total Asset Turn Over* (TATO) is the ratio of the amount of sales to total assets that measures efficiency of use assets as a whole. TATO value is influenced by the amount of sales and total assets, both current and fixed assets, so that TATO can be enlarged by adding assets on one side and on the other hand it is sought so that sales can increase relative to the increase in assets or by reducing sales accompanied by a reduction relative to assets

(Argananta&Hidayat, 2017). The greater the TATO, the better because the more efficient all assets used to support sales activities. This is supported by research from Pongrangga, Dzulkirom, &Saifi (2015) and Argananta&Hidayat (2017) which state that TATO has a positive effect on ROE.

H<sub>5</sub> : *Return On Equity* (ROE) moderates the effect of *Total Assets Turn Over* (TATO) on DPR

**G. Relationship between Investment Opportunity Set to Profitability**

*Investment Opportunity Set* (IOS) is an investment opportunity that describes the extent of opportunities or investment opportunities for a company. Investments made by companies can provide opportunities for companies to improve their competitive advantage and can improve company performance if properly utilized. RR Sari et al. (2014) states that if a company has a high investment growth and has a good investment opportunity, it will tend to hold back the profit earned for financing its investment. Based on this, IOS can have a positive effect on ROE supported by the research of Marinda et al. (2014) and Muniandy& Hillier (2015).

H<sub>6</sub> : *Return On Equity* (ROE) moderates the effect of the *Investment Opportunity Set* (IOS) on DPR

**III. FRAMEWORK**

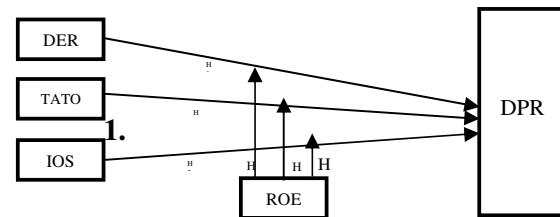


Figure 2.1. Theoretical Thinking Framework  
Source: Sugiyono

**IV. RESEARCH METHOD**

**A. Population and Samples**

The population in this study were LQ45 companies listed on the Indonesia Stock Exchange

(IDX). The number of LQ45 companies listed on the Indonesia Stock Exchange in the period 2012-2017 were 81 companies engaged in their respective fields ([www.seputarforex.com](http://www.seputarforex.com)). The period that was observed was the data for the period of 2012 to 2017.

The sample is part of the population. The sample in this study was 17 LQ45 companies in the period 2012-2017. 17 companies were taken based on the *Purposive Sampling Method*. According to Sugiyono (2012), *purposive sampling* is a technique of determining samples with certain considerations. The criteria used are:

**Table 1. Criteria for Research Sampling**

No	Criteria	Amount of
1	Company included in the LQ45 company from 2012 to 2016.	81
2	Companies that inconsistently issue dividends in the period 2012 to 2016.	(64)
<b>Amount Research Samples</b>		<b>17</b>

Source: processed data

Based on 81 LQ45 company population for the period 2012-2017, a sample of 17 companies was obtained based on predetermined criteria. The following is a list of companies used as research samples.

**Table 2. List of LQ45 Companies that are Sampled**

No	Code	Company Name
1	AKRA	AKR CorporindoTbk
2	ASII	Astra International Tbk
3	BBCA	Bank Central Asia
4	BBRI	Bank Rakyat Indonesia (Persero) Tbk
5	BBTN	Bank Tabungan Negara (Persero) Tbk
6	BMRI	Bank Mandiri (Persero) Tbk
7	HMSP	HM SampoernaTbk
8	JSMR	JasaMarga (Persero) Tbk
9	PGAS	National Gas Company (Persero) Tbk
10	PTBA	Bukit Asam Coal Mine (Persero) Tbk
11	SCMA	Surya Citra Media Tbk
12	SMGR	Semen Indonesia (Persero) Tbk
13	TLKM	Telekomunikasi Indonesia (Persero) Tbk
14	UNTR	United Tractors Tbk
15	UNVR	Unilever Indonesia Tbk
16	WIKA	Wijaya Karya (PERSERO) Tbk
17	WSKT	WaskitaKarya (PERSERO) Tbk

Source: [www.idx.com](http://www.idx.com)

**B. Analysis Techniques**

**- Moderated Regression Analysis**

*Moderated Regression Analysis* (MRA) is a special application of multiple linear regression where the regression equation contains an element of interaction (multiplying two or more independent variables). The regression model using the *Moderated Regression Analysis* (MRA) in this study is formulated as follows:

$$Y = a + b_1 \text{ DER} + b_2 \text{ TATO} + b_3 \text{ IOS} + b_4 \text{ ROE} + b_5 \text{ DER} \times \text{ROE} + b_6 \text{ TATO} \times \text{ROE} + b_7 \text{ IOS} \times \text{ROE} + e$$

Description

Y = Dividend Payout Ratio (DPR)

a = constant

b<sub>1</sub>, b<sub>2</sub>, b<sub>3</sub>, b<sub>4</sub>, b<sub>5</sub>, b<sub>6</sub> = coefficient of independent variables

**- Hypotheses Test**

Testing hypothesis using t test and F.

1. T test is a test tool that compares the results of the calculation of t statistically significant with the level of a (0.05) by means of decision making:
  - The t test is statistically significant greater (>) than 0.05; then H<sub>0</sub> accepted.
  - The statistic t test is significantly smaller (<) than 0.05; then H<sub>0</sub> is rejected
2. F test is a regression test together from independent variables. This simultaneous hypothesis test compares the calculated F value with the value F at a certain value.
  - Significant statistical F test greater (>) than 0.05; then H<sub>0</sub> is rejected.
  - The statistically significant F test is smaller (<) than 0.05; then H<sub>0</sub> is accepted
3. Determination Coefficient Test (R<sup>2</sup>) is a test tool that measures how far the ability of a model in explaining the variation of the dependent variable. In general, the coefficient of determination is between zero (0) and one (1). AR<sup>2</sup> small value means that the variation of the dependent variable is very limited and the value that approaches one (1) means that the independent variables can already provide all

the information needed to predict the dependent variable.

Source: SPSS 23 (data processed)

**V. RESEARCH RESULT**

**A. Classical Assumption Test**  
**- Normality Test Results**

**Table 3. Normality Test for Kolmogorov-Smirnov Test**

		Standardized Residual
N		102
Normal Parameters <sup>a</sup>	Mean	,0000000
	Std. Deviation	,97493336
	Absolute Differences	
Most Extreme Differences	Positive	,080
	Negative	-,067
Test Statistic		-,080
Asymp. Sig. (2-tailed)		,110 <sup>c</sup>

- a. The distribution test is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.

Source: SPSS 23 (data processed)

The normality test can be seen by the test *Kolmogorov-Smirnov* performed on residual values. The test results on 102 data show that all variables have normal distribution which is indicated by the significance value of the *Kolmogorov-Smirnov test* of 0.110 which is greater than 0.05.

**- Moderated Regression Analysis (MRA) Test Results**

**Table 7. Results of Regression Moderated Regression Analysis (MRA) Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
1 (Constant)		3.173,		9.813	.323,000
DER	-,	156,067	-,245		2.339,021
TATO		181,060,	289	3,020,	.003
IOS	-,	015,006	-,685		2.668,009
ROE	1.014	,229	1,030	4.439,	.000
DER * ROE	-,	111,058	-,176		1.919,058
TATO * ROE		103,063,	151	1,638,	.018
IOS * ROE	ROE,162,		055,274	2,946,	.004

a. Dependent Variable: DPR

$$DPR = 3,173 - 0,156DER + 0,181TATO - 0,015IOS + 1,014ROE - 0,111DER * ROE + 0.103TATO * ROE + 0.162IOS * ROE$$

The regression coefficient on the independent variables illustrates if it is estimated that the independent variable increases by one and the value of other independent variables is estimated to be constant or equal to zero (0), then the value of the dependent variable is expected to rise or fall according to the independent variable regression coefficient sign. The results of the regression equation above obtained a constant value of 3.173. In this case it means that if the dividend policy variable (Y) is not affected by the four independent variables, then the average value of the company will be 3.173.

Signs of the regression coefficient of the independent variable indicate the direction of the relationship of the variables concerned with dividend policy (Y). Regression coefficients for independent variable X<sub>1</sub> (DER) are negative, indicating the existence of a unidirectional relationship between X<sub>1</sub> and dividend policy.

Signs of the regression coefficient of the independent variable indicate the direction of the relationship of the variables concerned with dividend policy (Y). Regression coefficients for independent variables X<sub>2</sub> (TATO) are positive, indicating the existence of a unidirectional relationship between X<sub>2</sub> and dividend policy.

Regression coefficients for independent variables X<sub>3</sub> (IOS) are negative, indicating a non-unidirectional relationship between X<sub>3</sub> and dividend policy.

Signs of the regression coefficient of the independent variable indicate the direction of the relationship of the variables concerned with dividend policy (Y). Regression coefficients for independent variables X<sub>4</sub> (ROE) are positive,

indicating the existence of a unidirectional relationship between  $X_4$  and dividend policy.

Signs of the regression coefficient of the independent variable indicate the direction of the relationship of the variables concerned with dividend policy (Y). Regression coefficients for independent variables  $X_1^* X_4$  are negative, indicating the existence of a unidirectional relationship between  $X_1^* X_4$  with dividend policy.

Regression coefficients for independent variables  $X_2^* X_4$  are negative, indicating that there is a unidirectional relationship between  $X_2^* X_4$  with dividend policy. The variable regression coefficient value  $X_2^* X_4$  of 0.103 implies that for every increase of  $X_2^* X_4$  equal to one unit it will cause a decrease in dividend policy of 0.103.

Signs of the regression coefficient of the independent variable indicate the direction of the relationship of the variables concerned with dividend policy (Y). Regression coefficients for independent variables  $X_3^* X_4$  are negative, indicating that there is a unidirectional relationship between  $X_3^* X_4$  with dividend policy.

**B. Hypotheses Test**

**- F Test Results**

F test is a regression test jointly from independent variables by comparing the F value<sub>calculated</sub> with the value F at a certain value.

**Table 8. Results Conclusion Test F**

F count	Df	F table	Sig	Description	Conclusions
5,005	df1 = 7 df2 = 94	2,110	0,000	Ho rejected	There is a significant effect

Source: SPSS 23 (data processed)

From the table above, obtained F count value of 5,005. F value<sub>calculated</sub> (5,005) > F<sub>table</sub> (2,110), then Ho is rejected. Thus it can be concluded that there is a significant effect of *Leverage*, TATO, *Investment Opportunity Set* on dividend policy with profitability to be a moderating variable.

**- T Test Results**

**• Independent Variable Test Result**

t test results based on statistical processing are presented in the following table:

**Table 9. Test Results Independent Variable**

Variable	t	dF	ttable	Sig	Description	Conclusion
$X_1$	-2.339	94	0.677	0.003	$H_0$ accepted	Significant
$X_2$	3,020	94	0.677	0.003	$H_{0is}$ rejected	Significant
$X_3$	-2.668	94	0.677	0.009	$H_0$ accepted	Significant

Source: SPSS 23 (the processed data)

the above table shows the results that variable *leverage* ( $X_1$ ) which is proxied by *Debt to Equity Ratio* (DER) obtained by value t count at -0,428. value<sub>T</sub> smaller than t<sub>table</sub> (-2.339 < 0.677) then  $H_{01}$  received, with a significance value of 0.021 > 0.05. Therefore, it can be concluded that *leverage* proxied by DER has a significant negative effect on Dividend Policy (Y).

Variable *Total Asset Turn Over* ( $X_2$ ) obtained by value t<sub>count</sub> equal to 3,020 bigger than t<sub>table</sub> is 0.677 (3.020 > 0.677) then  $H_{02}$  rejected, with significant value 0.003 < 0.05. Therefore, it can be concluded that TATO has a significant positive effect on Dividend Policy (Y).

The results of the variable *Investment Opportunity Set* ( $X_3$ ) obtained a value of t count of -2,668. T value smaller than t table (-0.294 < 0.677) then  $H_{03}$  received, with a significance value of 0.009 < 0.05. Therefore, it can be concluded that the *Investment Opportunity Set* (IOS) has a significant negative effect on Dividend Policy.

**• Moderating Variable Test Result**

T test results based on statistical processing are presented in the following table:

**Table 4.8 Test Results Moderating Variable t**

Variable	t	dF	ttable	Sig	Description	Conclusion
$X_4$	-1.919	94	.677	.058	$H_0$ accepted	Insignificant
$X_5$	1.638	94	0.677	0,18	$H_{0is}$ rejected	Significant
$X_6$	2.946	94	0.677	0.004	$H_{0is}$ rejected	Significant

Source: SPSS 23 (the processed data)

the above table shows the results that variable *leverage* moderated by proxy for profitability ROE (DERxROE) obtained value, of -1.919. T value smaller than t table (-1.919 < 0.677) then  $H_04$  received, so it can be concluded that the profitability is not able to moderate *leverage* significantly to the Dividend Policy (Y).

*Total Asset Turn Over* (TATO) which is moderated by profitability proxied by ROE (TATOxROE) so that the value of t count is 1.638. The value of  $t_{count}$  greater than t table (1.638 > 0.677) indicates that  $H_05$  is rejected with a significance value of 0.018 < 0.05. It can be concluded that profitability can moderate the Total Asset Turn Over (TATO) significantly towards Dividend Policy (Y).

*The Investment Opportunity Set* (IOS), which is moderated by profitability proxied by ROE (IOSxROE), is obtained with a calculated t value of 2.946. The value of  $t_{count}$  greater than t table (2.946 > 0.677) indicates that  $H_06$  is rejected with a significance value of 0.004 < 0.05. It can be concluded that profitability is able to moderate the *Investment Opportunity Set* (IOS) significantly to Dividend Policy (Y).

- **Determination Coefficient Test Results (R<sup>2</sup>)**

**Table 4.11. Determination Coefficient Test Result (R<sup>2</sup>)**  
Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,657 <sup>a</sup>	,432	,389	21,72630

a. Predictors: (Constant), IOSxROE, DER, TATO, ROE, TATOxROE, DERxROE, IOS

Source: Application Statistics (data processed)

The value of R in the regression is 0.657, this indicates that the regression model has a relationship between variables of 43, 2%. This means that 43.2% dividend variables will be influenced by the independent variables, namely DER (X1), TATO (X2), IOS (X3), ROE (X4),

DERxROE (X5), TATOxROE (X6), IOSxROES (X7). While the remaining 56.8% dividend variables will be influenced by other variables not discussed in this study.

**VI. DISCUSSION**

**A. Effect Of Leverage on Dividend Policy**

The results of the hypothesis in this study indicate that *leverage* has a significant negative effect on dividend policy. These results illustrate that the greater the company's debt, the smaller the company's ability to pay dividends. This reflects that companies tend to use (external) sources of funds that are considered more effective and easier to obtain. In addition, capital structures that emphasize debt reflect that the company is in a condition of requiring large funds to invest.

The negative relationship between DER to dividend policy also reflects three explanations. First, companies that often owe prefer to deduct dividends voluntarily, so that cash earned by companies to pay dividends is used to pay off debts. Second, high levels of debt increase a company's risk and increase external funding costs, making the company more dependent on retained earnings. Third, debt has an important role in management, reducing information asymmetry and agency problems. This can reduce valuable money signals embedded in dividends if the debt level is high (Jabbouri, 2016).

The characteristics of companies included in the LQ45 company category produce different analyzes related to the use of debt to dividend distribution. In general, LQ45 group companies share company profits for cash dividends in portions that depend on the size of the investment and company debt. If the investment needs are high, then some will be funded from internal and external sources so that the company does not only need a source of funds from the investor, but the company also needs funds from the debtor by backing up the funds that are available for further activities and using debt received to support the



company in maximizing the results of higher profits, so that high profits make the company able to pay debts.

In the financial sector where there are 4 companies included in the sample this study has a DER value of more than 2.0, this indicates that the company's equity decisions have been largely fulfilled by debt. A high DER value can disrupt the company's performance and disrupt the growth of the company's stock price because investors many investors avoid companies that have a high DER value.

This finding is in line with the bird in the hand theory where the company will pay certainty to cash dividends to investors. This also supports the theory of capital structure, namely the pecking order theory where the company seems to finance investments from internal sources and debt. Although the company carries out financing with internal sources, the company still considers dividend distribution to shareholders. This is because companies that are members of the LQ45 group put more emphasis on the company's image in the eyes of investors, besides that the LQ45 company investors invest to get dividends.

These results support the research conducted by Ardestani, Rasid, Basiruddin, & Mehri, (2013), Argananta&Hidayat (2017), Dewi& Tri (2015), Meilani&Amboningtyas (2016), Pamungkas, Rusherlistyani, &Janah (2017 ), Putra & Mahfud (2017), Sari, Muharam, &Sofyan (2014), Sulaiman (2016) which states that leverage has a negative effect on the DPR due to the condition of the DER ratio which fluctuates every year. Thus, Hypothesis 1 (H1) which states that leverage has a significant negative effect on dividend policy is rejected.

#### ***B. Effect Of Total Asset Turn Over (TATO) on Dividend Policy***

The results of the hypothesis in this study indicate that Total Asset Turn Over (TATO) has a significant positive effect on dividend policy. The positive relationship of TATO to dividend policy

means that companies that have fast asset turnover tend to have higher dividend value, so the more efficient the level of asset use, the greater the income that can be generated from each asset owned by the company. High asset turnover will reflect the company's performance financially, so the higher the company's asset turnover, the higher the company's ability to distribute dividends.

Significant positive influence on LQ45 group companies shows that the efficiency of asset use is able to make management (company) have high income with optimal costs so that it can increase net income and avoid accumulation of assets. This can increase funds that can be distributed as dividends to shareholders, besides that it can also help the company's image in the eyes of investors who want to invest in the LQ45 company.

These results support the research conducted by Aisyah (2015), Dewi& Tri (2015), Nerviana (2015), Rahmawati et al. (2014), Sulaiman (2016) which states that Total Asset Turn Over (TATO) has a positive effect on dividend policy. Thus, Hypothesis 2 (H2) which states that Total Asset Turn Over (TATO) has a significant positive effect on dividend policy received.

#### ***C. Effect of Investment Opportunity Set (IOS) on Dividend Policy***

The results of the hypothesis in this study indicate that the Investment Opportunity Set (IOS) has a significant negative effect on dividend policy. These results indicate that companies that have high opportunity growth tend to provide lower dividend distribution. This shows that if the condition of a company is in good condition, the management will tend to choose to make new investments with these funds rather than paying high dividends.

To get a high IOS value, the company requires a high level of growth, while increasing the sales growth of the company certainly requires a large cost so that the company requires funding from both internal and external and some companies choose to use internal funds rather than using

external funds. This statement is supported by the pecking order theory which states that companies prefer internal funding compared to external funding, so that dividend payments will decrease.

This result states that LQ45 corporate investment opportunities are partly funded by external funds so that the value of the dividend policy is low. The investment made by the company will influence dividend policy. When there are good investment opportunities available to companies, shareholders may decide to ignore dividends and support opportunities for profitable growth. Conversely, when there is no growth opportunity available for the company, then shareholders may decide to place managers under pressure to pay dividends so that their income cannot be used for the benefit of the insider (Ardestani et al., 2013). It can be said that in general LQ45 companies have high growth so that investment opportunities influence dividend policy predominantly among other variables.

These results support the research conducted by Dewi & Tri (2015), Purnami & Artini (2016), Putra & Mahfud (2017) and Sari et al. (2014) which states that the Investment Opportunity Set (IOS) does not affect dividend policy. Thus, Hypothesis 3 (H3) which states that Investment Opportunity Set (IOS) has a significant positive effect on dividend policy is rejected.

#### ***D. Profitability Moderates the Effect of Leverage on Dividend Policy***

The results of the hypothesis in this study indicate that profitability is not able to moderate the influence of leverage on dividend policy with the value of R square (R<sup>2</sup>) of 0.063. These results indicate that the magnitude of the moderating variable of profitability in the influence of leverage on dividend policy is only 6.3% while the remaining 93.7% is influenced by other factors.

Based on the LQ45 company data collected, it is known that the financial sector and the Consumer Goods Industry sector included in

LQ45 have a high DER value. This shows that high DER indicates that the company's equity needs are mostly met with debt. A company that decides to pay off debts that are due by replacing other securities or paying by using retained earnings, the company prioritizes paying the debt (Trisnandari, 2015).

Companies that have large profitability may not be able to pay high dividends to shareholders if the company has high debt. This is because the company has a burden to pay off debt so that the greater the proportion of debt used for the capital structure of a company, the greater the obligation. This result is in line with the tax preference theory which wants the dividends to be distributed in small amounts with the aim of maximizing the value of the company.

The results of this study are in line with the average amount of ROE of LQ45 companies in graph 1.1 which has continued to decline for three consecutive years, supported by an average DER that has increased which weakens the influence of DER on dividend policy. Thus, Hypothesis 4 (H4) which states that profitability is able to moderate the relationship of leverage to dividend policy is rejected.

#### ***E. Profitability Moderates the Effect of Total Asset Turn Over (TATO) on Dividend Policy***

The results of this study indicate that profitability is able to moderate the effect of Total Asset Turn Over (TATO) on dividend policy with the value of R square (R<sup>2</sup>) of 0.191. These results indicate that the magnitude of the moderating variable of profitability in the effect of TATO on dividend policy is only 19.1% while the remaining 80.9% is influenced by other factors.

Return On Equity (ROE) which is a proxy of profitability is a market ratio that is able to describe the prospect and market assessment of the company concerned. A high ROE value reflects the high market valuation of the company (overvalued), and vice versa, the low ROE value

indicates a low market valuation of the company (undervalued). This shows that profitability is considered capable of increasing dividend policy when asset turnover weakens.

Based on LQ45 company data collected, it is known that every year almost all companies show an increasing trend. This illustrates that the more efficient use of assets, thus limiting the purchase of new assets that can reduce capital so that it will increase profitability (ROE), with increasing profitability, it will immediately increase sustainable growth rate due to the company's ability to fund its sales activities. Thus, Hypothesis 5 (H5) which states that profitability is able to moderate the relationship of Total Asset Turn Over (TATO) to dividend policy is accepted.

**F. Profitability Moderates the Effect of Investment Opportunity Set (IOS) on Dividend Policy**

The results of this study indicate that profitability is able to moderate the influence of the Investment Opportunity Set on Dividend Policy with the value of R square (R<sup>2</sup>) of 0.145. These results indicate that the magnitude of the moderating variable of profitability in the effect of TATO on dividend policy is only 14.5% while the remaining 85.5% is influenced by other factors.

Profitability is considered capable of increasing dividend policy when high IOS and profitability are not able to reduce dividend policy when IOS is low. Companies that are able to manage their companies well show that the company is able to increase the amount of dividends given to shareholders and for companies that are not able to choose the right investment, the expenditure will be higher than the value of the opportunity lost.

Profitability is able to moderate the influence of IOS on dividend policy supported based on LQ45 company data that has been collected, it is known that each research sample has a stock price that tends to increase. This increase can make the

company regulate the amount of dividends shared with shareholders and the amount to be used for investment activities (Nerviana, 2015). Thus, Hypothesis 6 (H6) which states that profitability is able to moderate the Investment Opportunity Set (IOS) relationship with dividend policy is accepted.

**Tabel 4.12 Summary of Research Results**

Relation	Hypothesis	Result	Info
Leverage on the DPR	H <sub>1</sub> : Leverage has a positive significant effect	Leverage has a negative significant effect	Rejected
TATO on the DPR	H <sub>2</sub> : TATO has a positive significant effect	TATO has a positive significant effect	Accepted
IOS on the DPR	H <sub>3</sub> : IOS has a positive significant effect	IOS has a positive significant effect	Rejected
Profitability moderates the influence of Leverage on the DPR	H <sub>4</sub> : Profitability can moderate the influence of Leverage on the DPR	Profitability is not able to moderate the influence of Leverage on the DPR	Rejected
Profitability moderates the influence of TATO on the DPR	H <sub>5</sub> : Profitability is able to moderate the influence of TATO on the DPR	Profitability is able to moderate the influence of TATO on the DPR	Accepted
Profitability moderates the influence of IOS on the DPR	H <sub>6</sub> : Profitability is able to moderate the influence of IOS on the DPR	Profitability is able to moderate the influence of IOS on the DPR	Accepted

Source: Application Statistics (data processed)

**V. CONCLUSION**

This study examines profitability as a moderating variable to determine the effect of leverage, Total Asset Turn Over (TATO) and Investment Opportunity Set (IOS) on dividend policy in LQ45 companies on the Indonesia Stock Exchange in a period of 6 years, namely 2012-2017. Based on the results of data analysis and discussion that has been done, the following conclusions are obtained:

1. Simultaneous testing of statistics using the F test shows that leverage, Total Asset Turn Over

(TATO) and Investment Opportunity Set (IOS) together have a significant effect on dividend policy.

2. Leverage as measured by Debt to Equity Ratio (DER) has a negative (-) significant effect on dividend policy as measured by Dividend Payout Ratio (DPR), Total Asset Turn Over (TATO) and a positive (+) significant effect on dividend policy while Investment Opportunity Set (IOS) has a negative (-) significant effect on dividend policy.
3. Profitability measured by Return on Equity (ROE) is not able to significantly moderate the relationship between leverage measured by Debt to Equity Ratio (DER) to Dividend Policy with a value of R square (R<sup>2</sup>) of 0.063. These results indicate that the magnitude of the moderating variable of profitability in the influence of leverage on dividend policy is only 6.3% while the remaining 93.7% is influenced by other factors.
4. Profitability measured by Return On Equity (ROE) is able to significantly moderate the relationship between Total Asset Turn Over (TATO) to Dividend Policy and the value of R square (R<sup>2</sup>) of 0.191. These results indicate that the magnitude of the moderating variable of profitability in the effect of TATO on dividend policy is only 19.1% while the remaining 80.9% is influenced by other factors.

Profitability as measured by Return On Equity (ROE) can significantly moderate the relationship between the Investment Opportunity Set (IOS) to the Dividend Policy and the R square value (R<sup>2</sup>) of 0.145. These results indicate that the magnitude of the moderating variable of profitability in the effect of TATO on dividend policy is only 14.5% while the remaining 85.5% is influenced by other factors.

### **Research Limitations**

In this study there are several limitations, including:

- 1 The selection of samples in this study uses a purposive sampling method that uses several criteria so that this causes the results of the

study to not reflect the overall condition of the population studied.

- 2 Not all companies included in the category of LQ45 companies during the period 2012-2017 consistently issue dividends (Dividend Payout Ratio).
- 3 The test results obtained in the study produce low significance so that the final results of some variables have no effect. This is because the results of calculation of variable ratios continue to decline every year.

### **Suggestion**

Based on the conclusions and limitations of the research above, here are some suggestions in this study that might be useful in making investment decisions.

1. For investors, it is recommended to pay more attention to the condition of the company's financial performance not only from the financial statements presented by the company, but to analyze the financial performance of the company. TATO can be used as an analysis tool for financial performance that is accurate in measuring how much the company's effectiveness in using assets in the form of assets.
2. For future researchers in the future it is recommended to expand the independent variables used such as EPS, CR and so on which represent variables of the company's financial performance. In addition, it is recommended for future researchers to be able to expand the research period and objects outside the LQ45 company. This expansion is expected to analyze financial performance in general and apply to all companies listing on the Indonesia Stock Exchange.

### **Research Implications**

The implications of this study consist of theoretical implications and applied implications, namely as follows.

- Theoretical Implications

Based on the results of the study it was proven that leverage and Investment Opportunity Set (IOS) had a negative influence on dividend

policy, while Total Asset Turn Over (TATO) had a positive relationship to dividend policy. Similarly, profitability is not able to moderate the relationship between leverage and dividend policy, while profitability is able to moderate the relationship between Total Asset Turn Over (TATO) and Investment Opportunity Set (IOS) on dividend policy.

- Practical implications

1. For Investors

The results showed that Total Asset Turn Over (TATO) has a positive effect on dividend policy (DPR) so that in determining investment decisions investors can see the asset turnover factor in the company, because if TATO increases, the greater the profit the company gets.

- a. The results also show that leverage (DER) and Investment Opportunity Set (IOS) have a negative effect on dividend policy (DPR) so that in determining investment decisions investors must look at the source of the company's funds and the opportunity to invest. This is because if the larger the company's debt and the higher the growth of opportunities, the smaller the company's ability to pay dividends.

2. For Companies

- a. For companies in making dividend policy decisions, they can consider asset turnover which is proxied by Total Asset Turn Over (TATO). This is reasonable because the greater asset turnover (TATO) indicates that the sales value of the company also increases and the greater the expectation of getting bigger profits. Asset rotation can attract investors to invest in companies that are members of the LQ45 company.

- b. Companies can also consider leverage value (DER). Companies that have a DER value of more than 2.0 indicate that the company's equity decisions have been largely fulfilled by debt. A high DER value can disrupt the company's performance and disrupt the growth of the company's stock price because investors many investors avoid companies that have a high DER value.

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