Profitability and Capital Structure and its Impact on Dividend Policy: A Case Study of Real Estate Property Sectors Listed in Indonesia Stock Exchange 2013-2017

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ABSTRACT

The property sector is one of the industrial sectors that has a vital role as an indicator of a country's economy condition. The level of industrial development can be seen from the dividend policy in the form of cash dividends given to the shareholders as a return of operational activities. The amount of provided cash dividends is one of the essential considerations for investors in investing their capitals in companies. Some previous studies show that the profitability and capital structure has a significant role in influencing dividend policy. Thus, this study examines the influence of these two factors on dividend policy. The results of the study prove that profitability has a positive and significant effect, with a regression coefficient of 0.610. Meanwhile, the capital structure has a negative and significant effect, with a regression coefficient of -0.030. The total effect value of the two variables is 68%, while the remaining 32% comes from the other variables that are not used in the research model.

Keywords: profitability, capital structure, dividend policy.

INTRODUCTION

The property sector is an essential industrial sector that indicates economic conditions. The property sector industry signals the decline or development of a country's economy (Santoso in Prihantini, 2009).

From a macroeconomic perspective, the property industry has an extensive business scope; the development of this industry contributes positively to national economic growth and employment opening (Nugraha, Yusup & Juhara, 2018).

In terms of investors or owners of capital, stocks are one of the most alternative investment

choices in the capital market, since the profits obtained are relatively higher while the capital costs incurred are not as significant as bond (Widoatmodjo, 2015). However, due to the high level of risk, the carefulness of investors is essential in analyzing the company's financial report. It is following the Financial Services Authority (OJK) Regulation No. 29 / POJK.04 / 2016 in the explanation section, which states that financial statements are a source of information for investors in making investment decisions.

Dividends obtained from investment returns on the capital market are one of the objectives of investors in determining their investments (Embara, Wiagustini & Badjra, 2012). Rahayu and Sari (2018: 71) state that dividend policy is a dominant factor in influencing an investor's decision to invest in a company.

An increase in dividend payments by companies is a good cash flow signal in the future in fulfilling operational and business development needs without increasing bankruptcy risk (Naceur & Goaied, 2002). Al-Twaijry (2007), in his research on the Kuala Lumpur stock exchange, concluded that the dividend policy has a significant impact on the company in the future when it is established and carefully followed.

Therefore, dividend policy describes the company's financial condition in the future (Ross, 1977; Bhattacharya, 1979; Hakansson, 1982; Miller & Rock., 1985; Naceur & Goaied, 2002; Al-Twaijry, 2007). One of the ratios that describes the dividend policy is the dividend payout ratio (DPR), which compares the dividend per share divided by earnings per share (Amidu & Abor, 2006).
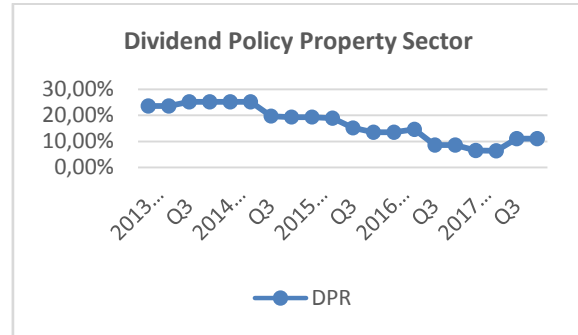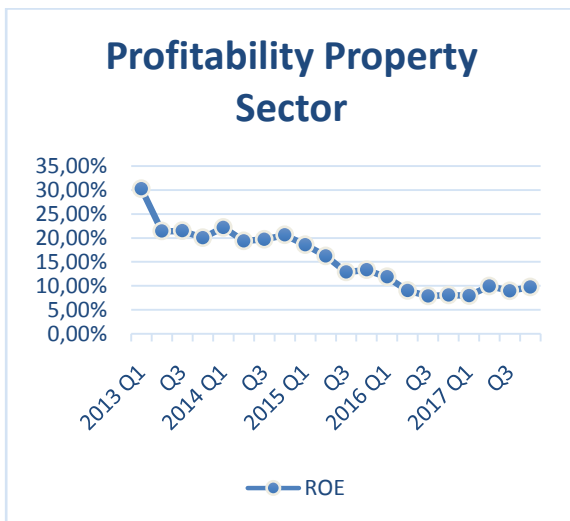

Source: MNC Securities

Figure 1. Dividend Policy (DPR) Property Sector 2013-2017

Figure 1 shows that the average amount of dividend distribution provided by property sector companies has decreased gradually. Some factors consider the company in conducting dividend policy according to Copeland and Weston (1992) include the Law that regulates that dividends must be paid from profits, the company's liquidity position, debt repayment, earnings stability, access to capital markets and corporate control as taxpayers. Kajola, Adewumi, & Oworu (2015) states that several factors influence dividend policy, including profitability, liquidity, company growth, company size, and capital structure. Baker & Powell in Alam & Hossain (2012) stated several factors that influence dividend policy, including current profitability and future estimates, dividend payment patterns, and the nature of the industry itself.

Furthermore, Alam and Hossain (2012) prove that profitability is a dominant factor that affects dividend policy. Rappaport (1986) revealed that profitability is a principal value-driving factor for the company. Improved profitability can be sourced from achieving relevance in economies of scale, reducing the cost of relationships with suppliers and distribution channels, eliminating overheads that are not related to increasing production value and reducing costs that do not contribute to

buyer needs. Naceur & Goaied (2002) examine the relevance of profitability in value creation, which includes the modeling elements of the ratio of net income received by shareholders in the form of dividends given.

Several ratios can be proxiedby the level of profitability produced by the company. However, the Return on Equity (ROE) is a better ratio in reflecting the effectiveness of company management in using shareholder funds (Hassan & Bashir, 2003). Return on Equity is measured by Net Income divided by Owner's Equity (Alshatti, 2015). The following figure is the average profitability level of real estate property companies listed on the Indonesia Stock Exchange 2013-2017

Source: MNC Securities

Figure 2. Property Sector Profitability (ROE) 2013-2017

Figure 2 shows that the average level of profitability in the real estate property sector weakened to its lowest point in the first quarter of 2017, then slightly increased in the second quarter and beyond. This situation indicates that a decrease in the level of profitability causes a reduction in the level of dividend payments provided by the company to its shareholders.

The next factor that affects dividend policy is the capital structure of the company. The theory of capital structure originated from research conducted by Modigliani and Miller (1958). However, subsequently, the theory began to be modified through further study to obtain a more optimal calculation model by including several factors including taxes, bankruptcy costs, external costs in the real worldbusiness, agency problems, asymmetric information, moral hazard, and other deviations from perfect market conditions (Anggarwal & Kyaw, 2010).

Companies that has access to the capital market can easily switch between debt and equity and take advantage of lower transaction costs that allow for more stable and better dividend policy. This flexibility is an illustration of the capital structure policy carried out by the company management, so there is a relationship between capital structure and dividend policy (Alli, Khan & Ramirez, 1993).

Debt requires companies to make fixed payments during the loan period and has severe consequences for the condition of the company including the risk of bankruptcy, while equity is more able to guarantee the company's financial condition, even though it has a tax payment rate that will be much higher (Barclay, Smith & Watts, 1995). Therefore, a company management policy is needed in managing the condition of its capital structure so that shareholders continue to receive stable cash dividend payments without increasing the risk of financial distress.

Capital structure can be proxied through a Debt to Equity Ratio (DER), which is a comparison between total debt and total equity owned by a company (Ang, 1997). Figure 3 displays the average capital structure of real estate property sector companies listed on the Indonesia Stock Exchange 2013-2017
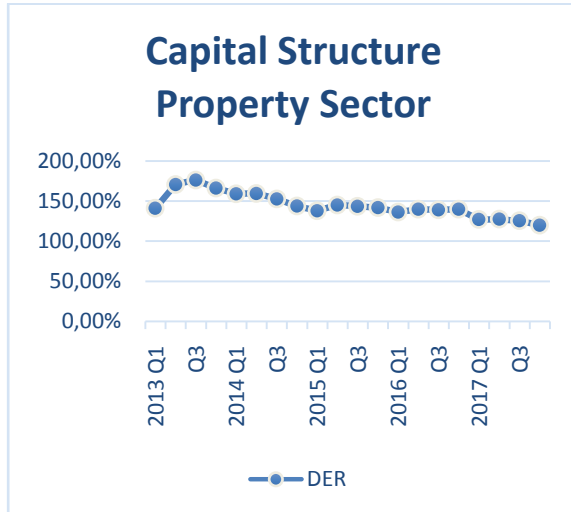
Source: MNC Securities

Figure 3 Capital Structure (DER) of the
Property Sector 2013-2017

Averagely, the real estate property sector companies listed on the Indonesian stock exchange have a debt level that is higher than their equity, the highest increase of debt levels in the 2013 third-quarter period, and then gradually decreases, which means that the company has begun to reduce its debt levels.

Therefore, this study intends to determine the extent influence of profitability and capital structure on dividend policy by using panel data analysis of a sample from real estate property sector companies listed on the Indonesian stock exchange during the period 2013-2017.

RESEARCH METHODS

The population in this study is all real estate property sector companies listed on the Indonesia Stock Exchange during the 2013-2017 period. The samples used in the study were five companies with some selection criteria with purposive sampling by using several criteria such as companies listed in the real estate property industry sector, had conducted an IPO before the research period, actively traded on

the stock market, had complete financial statements following research needs, and provide cash dividends regularly to shareholders.

Table 1. Real Estate Property Sector
Companies

No	Code	Company's Name	Date of IPO
1	BSDE	Bumi Serpong Damai Tbk.	June 06, 2008
2	CTRA	Ciputra Development Tbk	December 19, 2007
3	DILD	Intiland Development Tbk	September 04, 1991
4	GMTD	GowaMakassar Tourism Development Tbk.	December 11, 2000
5	SMRA	Summarecon Agung Tbk.	May 07, 1990

Source: MNC Securities

The variables used in this study can be grouped as follows:

1. Dependent Variable is dividend policy (Y), which is proxied by using the Dividend Payout Ratio (DPR).

2. Independent Variable, are Profitability (X1) which is proxiedby using the Return on Equity (ROE) and Capital Structure (X2) which is proxied by using the Debt to Equity Ratio (DER).

This study uses panel data analysis with panel data regression methods to know the influence of profitability and capital structure on dividend policy. The analysis uses Eviews 9 software with some provisions on the selection of panel data regression estimation models that are most suitable for the research model.

Panel data regression is a combination of time series data and cross-section data. Time series data is data that includes one individual or object (in this study the company) which covers several periods (daily, weekly, monthly, quarterly, semester or yearly), while the cross-section data consists of several individuals or objects (in research this company) within a specific period.

The Panel Data Regression Model has the same purpose as the Multiple Linear Regression, which is to predict the value of a constant or intercept (α) and the value of the regression coefficient or slope (βi). The use of panel data in regression will produce intercepts (α) and slope (βi) on each company and each time period.

The panel data regression model that will be estimated requires assumptions about intercepts, slope, and interrupt variables. To estimate model parameters with panel data, three models are often offered, such as: (1) Common Effect Model; (2) Fixed Effect Model; and (3) Random Effect Model.

The Panel Data Regression model used in this study is as follows:

$$Y_{it} = α + β_1 X_{1it} + β_2 X_{2it} + ε_{it}$$

In which:
Y: Dividend Policy
α: Constants or intercepts
β: Regression or slope coefficient
X1: Profitability
X2: Capital Structure
ε: Panel data regression error
i: research object (company)
t: time (quarter period)

There are three basic tests in processing the panel data regression, including the Chow test, the Hausman test, and the Lagrange Multiplier test (L-M test). The next step is testing the classical assumptions on the panel data regression model. The classic assumption testing aims to produce a good regression model. The classic assumption test is a way to find out whether the regression model obtained provides a good linear estimator to avoid errors in testing the classic assumptions, so the number of samples used is free from bias (Best Linear Unbias Estimator / BLUE).

The classic assumption test consists of: (1) Normality Test; (2) Multicollinearity Test; and (3) Autocorrelation Test. After the model is set to be used in processing panel data and testing classic assumptions, the next step is to conduct statistical testing.

The accuracy of the regression function in estimating the actual value can be measured from the goodness of fit. The goodness of fit value can be measured from the statistical value of t, F, and the coefficient of determination.

RESULTS AND DISCUSSION

Panel data regression estimation models

In the selection of the panel data regression model, it was found that the fixed effect and random effect models had significant partial or simultaneous influence values. Therefore an estimation model was chosen by using the Hausman test. The following table 2 shows the output of the test results.

The results of calculation output by using the Eviews 9 software on the Hausman test shows the significant value of the cross-section random probability of 0.0001 is smaller than α of 0.05, which means that in the selection of panel data regression models in the most appropriate study using fixed effects.

Table 2. Hausman Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.22249	2.220210	5.505105	0.0000
ROE	0.609619	0.080659	7.558002	0.0000
DER	-0.030353	0.016108	-1.884309	0.0326
	Effects Specification			
Cross-section fixed (dummy variables)				
R-squared	0.680462	Mean dependent var		17.25500
Adjusted R-squared	0.659846	S.D. dependent var		10.96113
S.E. of regression	6.392826	Akaike info criterion		6.615659
Sum squared resid	3800.745	Schwarz criterion		6.798021
Log likelihood	-323.7830	Hannan-Quinn criter.		6.689464
F-statistic	33.00746	Durbin-Watson stat		0.836950
Prob(F-statistic)	0.000000			

Source :Eviews 9 Output

Table 3 Fixed Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.22249	2.220210	5.505105	0.0000
ROE	0.609619	0.080659	7.558002	0.0000
DER	-0.030353	0.016108	-1.884309	0.0326
	Effects Specification			
Cross-section fixed (dummy variables)				
R-squared	0.680462	Mean dependent var		17.25500
Adjusted R-squared	0.659846	S.D. dependent var		10.96113
S.E. of regression	6.392826	Akaike info criterion		6.615659
Sum squared resid	3800.745	Schwarz criterion		6.798021
Log likelihood	-323.7830	Hannan-Quinn criter.		6.689464
F-statistic	33.00746	Durbin-Watson stat		0.836950
Prob(F-statistic)	0.000000			

Source :Eviews 9 Output

Based on the table, the obtained equation is:

$$Y = 12,222 + 0,610 X1 - 0,030 X2 + \varepsilon$$

After obtaining the calculation model in the best panel data regression analysis, the further step was proven by using the classic assumption test to find out the regression model that is free of bias (BLUE). The test results are as follows:

Classic Assumption Test

1. Normality Test

Source: Eviews 9 Output
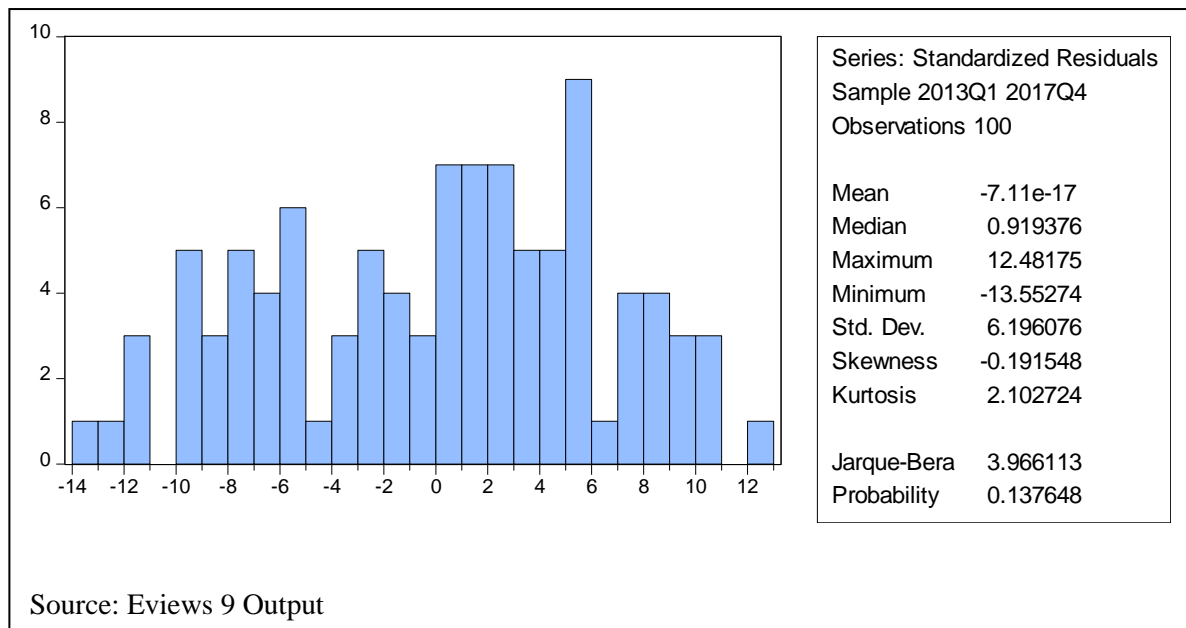
Based on these calculations it can be seen that the significance value of the Jarque-Bera probability is 0.137, greater than the α significance level of 0.05. Therefore, it can be said that the residual data in the equation model is normally distributed.

2. Autocorrelation Testing in Durbin-Watson Statistics value in the fixed effect model table is 0.8369. These results indicate that the dw value for the research model is in the range of $-2 <dw<2$ which means there are no symptoms of autocorrelation in the research model.

3. Multicollinearitytesting in this study aims to test the correlation between independent variables, where the regression model has a small correlation level, even it tends to be uncorrelated.

The following table shows the results of multicollinearity testing.

	ROE	DER
ROE	1.000000	0.302637
DER	0.302637	1.000000

The table shows the correlation coefficient between the profitability (X1), which is proxied by ROE to the capital structure (X2) proxied by DER

is 0.3026. The calculation result is smaller than 0.8, which means that there is no strong correlation between these independent variables, and the research model is free from the symptoms of multicollinearity.

According to the results of the panel data regression model selection which shows the best model for using panel data regression analysis by using fixed effects and after the results of testing the classic assumptions consisting of normality, autocorrelation, and multicollinearity tests and get the results that the research model used is BLUE.

The panel data regression equation used in the study can be formulated as follows:

Y = 12,222 + 0,610 X1 - 0,030 X2 + ε

In which:

Y: Dividend Policy

X1: Profitability

X2: Capital Structure

ε: Epsilon / Error (influence of other variables not examined)

This equation can be analyzed as follows:

a. A constant value (α) of 12,222 indicates that if profitability (X1) and capital structure (X2)

are 0, then the dividend policy (Y) is 12.222 units.

b. Regression coefficient (β1) of 0.610 indicates that there is a direct relationship (positive value) between profitability (X1) to the dividend policy (Y) of 0.610 units where if profitability (X1) rises by 1 unit, it will be followed by an increase in dividend policy (Y) equal to 0,610 units, with the condition that other variables are constant (ceteris paribus).

c. Regression coefficient (β2) of -0.030 shows that there is an opposite direction (negative value) between the capital structure (X2) to the dividend policy (Y) of 0.030 units where if the capital structure (X2) increases by 1 unit, it will be followed by a decrease dividend policy (Y) of 0.030 units, with the other variable conditions constant value (ceteris paribus).

The calculation results of the panel data regression equation model obtained the amount of R2 (R Squared) of 0.680. The results of these calculations mean that overall profitability (X1) and capital structure (X2) have an effect of 68% on dividend policy (Y). The remaining 32% is the influence of the other variables that are not examined.

The results of the calculation of fixed effect panel data regression obtained an F-statistic value of 33,007 with an F-statistic Probability of 0,000. The F-Statistic Probability value is smaller than the significance value α of 0.05, so that it can be stated that profitability and capital structure simultaneously have a significant effect on dividend policy.

The results of the calculation of fixed effect panel data regression obtained t-statistic ROE value of 7,558 with a probability t-statistic of 0,000. Probability t-Statistic value is smaller than the significance value α of 0.05 so it can be stated that profitability has a significant effect on dividend policy.

The results of the calculation of fixed effect panel data regression obtained t-Statistic DER value of -1.884 with a probability of t-Statistic of 0.033. Probability t-Statistic value is smaller than the significance value α of 0.05. Thus, it can be stated that the capital structure has a significant effect on dividend policy.

Research shows that profitability has a positive and significant effect on dividend policy, the results of this study are consistent with some previous studies such as those conducted by (Copeland & Weston, 1992; Naceur & Goaied, 2002; Kajola, Adewumi & Oworu, 2010); Alam & Hosain, 2012). Furthermore capital structure has a negative and significant effect on dividend policy; the results of this research are in accordance with some previous studies conducted by (Modigliani & Miller, 1958); Alli, Khan & Ramirez, 1993; Barclay, Smith & Watts, 1995).

CONCLUSIONS

Dividend policy in real estate property sector companies listed on the Indonesia Stock Exchange in the 2013-2017 period generally showed a downward trend. The decreased profitability of the company caused the decrease value of cash dividends given to the shareholders. Based on the results of the study found that profitability has a regression coefficient of 0.610. The capital structure has a regression coefficient of -0.030 with the simultaneous effect of the two variables is 68%, while the other variables contribute 32%to dividend policy.

It is recommended that real estate property sector management companies consider a more optimal capital structure in the ratio between the amount of debt with its own equity used to support the company's operational activities.

Therefore, it produces a better level of dividend payments to shareholders. The dividends policy must acknowledge government regulations, the amount of tax, and several other factors.

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