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Aang Munawar

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The Effect of Leverage, Dividend Policy, Effectiveness, Efficiency, and Firm Size on Firm Value in Plantation Companies Listed on IDX

Aang Munawar

Associate Professor, STIE Kesatuan, Indonesia

Abstract: *This research aims to test the influence of the variable Leverage (DER), Dividend Payout Ratios (DPR), Effectiveness (TATO), Efficiency (NPM), and Firm Size (Ln-Sales) to the Firm Value (Market Price) of plantations companies listed on the IDX. The population of the plantations listed in IDX is as much as 18 companies, but the plantation companies that have full data from the year 2009 to 2014 are 8 (eight) companies. The type of data used is secondary data by processing data from a company issued report. Subsequent data was analyzed which was preceded by testing the classical assumptions and testing the regression model. The results showed that the suitable regression model is a fixed effect model and partially Effectiveness (TATO), Efficiency (NPM), and Size that influence on the firm value while the leverage (DER), and Dividend Policy (DPR) does not affect on the firm value. Simultanously leverage, dividend policy, effectiveness, efficiency, and firm size affect to firm value.*

Keywords; leverage, dividend policy, effectiveness, efficiency, size, firm value

1. Background

Plantation industry is the most widely absorbed industry in Indonesia recorded in In the period of February 2017 people working in the agriculture sector as many as 39.68 million persons or 31.86 percent of the number of people working a total of 124.54 million people according to the head of BPS Suhariyanto in a press conference in Jakarta. (Tempo.Co, Friday, 5 May 2017). Nevertheless, plantation industry in Indonesia did not undergo many changes so that the mainstay is palm oil, rubber, tea, coffee and cocoa. The export of plantation commodities was substantial in contributing to the foreign exchange reserves. According to the Director general of Plantation in 2015 commodity of plantation contribution Rp 405.29 trillion, year 2016 rose to Rp 428.78 trillion and the year 2017 increased to Rp 471.31 trillion. (Detik.Finance, 5 Juni 2018). However, despite plantation results giving foreign exchange to the country, plantation commodity prices are heavily influenced by world economi. In the past year commodity prices were depressed so that the issue of efficiency and increased productivity became the main choice.

The company's value is reflected in the price of the market signal in response to the company's performance. According to the Tandelilin (2010) The stock price is a reflection of the investor's expectations of the earning factors, cash flow and investor-required return level, of which all three factors are also heavily influenced by economic performance. To be able to improve the company's value, management must continue to make systematic efforts so that the company's performance grows continuously.

According to Brigham and Houston (2006), when investors make decisions buying stocks then expect to gain a level of profit, but on the other hand investors should be willing to assume a high risk anyway. On the basis of that, then in investing in the capital market other than the profit factor, investors should also consider the risk factors. Risk factors in investing can be measured by beta. The higher the beta level, the higher the systemic risk.

In order to support increased efficiency and productivity, the company requires additional funds for investment. Christianti (2006) the funding decision should carefully consider the source of the funds to be selected. In funding decision making for the company, this relates to determining the capital structure. The capital structure can affect the value of the company itself which ultimately affects the achievement of the objectives to maximize shareholder welfare. This funding decision relates to the manager's policy of determining the exact proportion between the amount of debt and the amount of its own capital within the company so as to maximize the value of the company (Rustendi and Jimmi, 2008).

Leverage is associated with long-term spending measured by a comparison of long-term debt with its own capital that affects the company's value, the cost of corporate capital and stock market prices. The stock market price reflects the value of the company, thus if the value of a company increases, the stock market price of the company will also rise (I Made Sudana, 2011).

The dividend policy is one of the issues that debate among financial experts in the world. Dividends are very important for investors, because dividends provide certainty of a good corporate financial condition, appealing to investors who are looking for a fixed income, and help maintain the stock market price (Gill, et al. 2010). Many studies have been conducted to contribute theoretical thinking and provide empirical evidence about the deciding factor of a company's dividend policy, among others: Bhattacharyya (2007) explaining that the dividend policy is the hardest and a challenge for financial economics experts. Brealey and Myers (2005) include dividend issues in the list of one of the ten most important issues unsolved in finance. The policy on capital and dividend policy is an issue related to the company's value.With regard to the discussion on dividends

in financial approaches, financial studies often discuss dividend policy, in addition to financing, investment (investing), and operating (operating) the company as a financial function Company (Brigham and Daves, 2004). Research on dividend policy can be done with dividend signalling hypothesis testing, namely that changes in dividend policy indicate important internal information of the company which is useful for investor.

The company's ability to pay dividends can reflect the value of the company. If the dividend payment is high, then the share price is also high that impacts on the high value of the company as well as vice versa, the increase is increasing the number of requests on the shares, which increase the stock price and impact on the Return (Gill, et, al, 2010). According to Brigham and Houston (2006), if the ratio of liquidity, asset management, debt management and profitability everything looks good and if this condition runs continuously stably then the market ratio will be high and the stock price is likely to be high Expected.

The effectiveness of asset use is instrumental in creating the value of the company that is converted to asset turnover. The value of asset turnover reflects the growing company's capacity by creating sales that increase beyond the increase in its assets. Van Horne and Wachowicz (2007) stated that the total asset turnover was the ratio used to measure how effective the entire company's assets were used to generate sales. The increase in asset turnover reflects the investment of effective management in increasing sales.

In order to encourage increased corporate profits, management should be able to control the company's operations so as to ensure the incurred costs are based on predefined standards. The standard fee must be a reference in every expense that the company must charge. One size that can be specified in assessing the efficiency of the company is net profit margin (NPM). The high value of NPM shows company's efficiency in creating profits and reflects a healthy corporate fundamental factor. The company's health level affects the stock price of the company.

Firmsize is one of the keys in assessing economic scale and market mastery. Strong market mastery tends to be the company's high bargaining power in competition. The company size is proxi with sales level and total asset.

2. Literature Study

The definition of shares according to Anaroga and Pakarti (2001:58) of shares can be defined as a securities proof of participation of institutional ownership in a company. Meanwhile, according to Satono (2010) in his book people are willing to pay for each share of stock. According to Tandelilin (2001:18): "Stock is a proof that ownership of the assets of the company that issued the shares. The definition of shares in the opinion of Darmadji and Fakhrudin (2006) states that the shares can be defined as a sign of the inclusion or ownership of a person or entity in a limited company or company.From the above opinions can be stated that the shares are securities in the capital market and as proof of ownership of the institution in a company with the

expectation of shareholders will get dividends or profits from the shares that have been purchased. The stock price is reflected in the market price, which is the price formed in the stock trading market. According to Wild, Subramayam and Halsey (2005), stated that the analyses tried to estimate future stock prices by estimating the value of fundamental factors affecting share prices and implementing The estimated stock price. In addition to fundamental analysis, there is also technical analysis using the published market data which is the stock price. Technical analysis is conducted by finding patterns in price history or stock volumes to predict future stock prices. According to Brigham and Houston (2006), the fundamental factor affects the price of the company's shares, where the company's stock price will quickly adjust when the company's fundamental factors change.

Leverage gives a picture of a firm's capital structure, so that the risk of a loan that is uncollectible may be detected (Prayoga and Almilia, 2013). Capital structure according to Syahrial (2010), capital structure is a balancing between the use of capital loans consisting of permanent short-term debt, long-term debt with its own capital consisting of preferent stocks and ordinary shares. According to Cheng and Tzeng (2011), stating that a company that has a high leverage level has a higher influence on firm value than leverage level is lower depending on the quality of the company's funding. Kuban (2008) found in his research in the South African company that the increase of leverage negatively affects on firm value.

One of the policies that must be taken by the management of the company is to decide whether the profits obtained by the company during one period will be divided all or partially divided for dividends and some are not divided in the form of retained earnings. The dividend policy is one of the important decisions in relation to efforts to maximize the value of the company. The optimal dividend policy is a policy that creates a balance between current dividends and future growth that maximizes the stock price (Brigham et. al, 2004:66).Dhanani (2005) exposing the importance of dividend policies by conducting surveys to capture the views and attitudes of the company's managers, found that the dividend policy is functioning in raising the company's market value.

The role of management effectiveness is usually recognized as the most important factor in the long-term success of an organization. Success is measured in the form of achieving organizational objectives. Management can be defined as the process of assigning organizational goals and carrying out activities to achieve these objectives efficiently both in the form of human labor, materials, and capital resources. According to Barus and Leliani (2013) Total asset turnover is a ratio used to measure the effectiveness of asset use in generating revenue from sales. The higher level of effectiveness the higher value of the company.

Efficiency measurements can be seen based on sacrifices or costs incurred in generating income. According to Brigham and Houston (2006) profitability is a set of policies and decisions. Profitability can be said to be the company's ability to generate net profit from activities conducted in the

accounting period. The profitability ratio can be rate of return on assets, rate of return on equity, rate of return on investment and net profit margin. Subsequently Brigham and Houston (2006) stated that with high efficiency the profit would increase so as to give investors a positive signal about the increased profitability of the company so that it would ultimately increase the firm value.

According to Sujoko and Soebiantoro (2007) large size company shows the company is experiencing developments so that investors will respond positively and the value of the company will increase. This is because companies that have large size, generally already in the maturity stage and will have the prospect of good dividend distribution in the future as well as the relative market share of the competitive competitiveness Higher than its main competitors. Investors will respond positively so that the value of the company will increase. Then in general the company with a large size has a large total assets, so it can attract investors to invest in the company and finally the stock is able to survive at a high price. Generally companies with small size are very risky to change in economic condition and tend to be less profitable compared with large size company.

3. Hypothesis Formulation

Based on previous theories and studies that analyze the effect of DER, DPR, TATO, NPM and Size on firm value (stock price) can be explained as follows:

Effect of leverage on firm value
Debt to Equity Ratio is a ratio that measures the amount of debt that can be covered by its own capital. This ratio indicates the composition or structure of the capital of the total debt to the company's total capital. Increasingly high, Debt to Equity Ratio shows that the total debt composition (short-term and long-term) is greater than the total capital itself, the higher the Debt to Equity Ratio (DER) reflects the relatively high company risk, Consequently investors tend to avoid stocks that have high Debt to Equity Ratio (DER) values (Ang, 1997). According to Brigham and Houston (2006:103) company with low DER will have a small risk of loss when the economic situation experiences deterioration, but when the economic conditions improve, the opportunity to gain profit is also low. In contrast, the company with a high leverage ratio does not suffer the risk of large losses as the economy is declining, but in good condition, the company has a chance of gaining a big profit.Companies with higher profits will be able to pay a higher dividend, so as to deal with the profit-holding stocks that will rise due to higher debt levels, then leverage will be able to raise the stock price (Brigham and Houston, 2006:24). According to Cheng and Tzeng (2011), stating that a company that has a high leverage level has a higher influence on firm value than leverage level is lower depending on the quality of the company's funding.Kuban (2008)found in his research in the South African company that the increase of leverage negatively affects on firm value.
H_1There is a positive influence between leverage on corporate values.

Effect of dividend policy on firm value
Sugeng (2009) in his research entitled: Sustainabilitas dividend Initiation Policy on Go-Public companies in Indonesia, found evidence that hypotheses that indicate a significant positive influence of variables sustainability of dividend initiation policy on stock performance proved to be true. These findings proved that the market in the long term provided a consistent response to the company's policies that were able to maintain dividend sustainabilies.Companies with a high dividend sustainability rate will impact the company's share performance more positively than the company with a low dividend sustainabilitas rate. Dhanani (2005) exposing the importance of dividend policies by conducting surveys to capture the views and attitudes of the company's managers, found that the dividend policy is functioning in raising the company's market value.
H_2There is positive influence between dividend policy on firm value.

Effect of asset turn over on firm value
According to Brigham and Houston (2006) Return on equity is the ratio of net profit after tax to its own capital. In general, the higher the TATO then the higher the ROE, the better the position of the company owners so it will cause a good valuation of investors to the company that causes the increase in stock prices and firm value. According to Barus and Leliani (2013) Total Asset Turnover is a ratio used to measure the effectiveness of asset use in generating revenue from sales. The higher level of effectiveness the higher value of the company.
H_3There is positive influence between total assets turn over onfirm value.

Effect of firm efficiency on firm value
According on Beccalli et al. (2006) find that changes in efficiency are reflected in changes in stock prices.Kirkwood and Nahm (2006) stating that changes in the company's efficiency will be reflected in the change in the stock price, resulting in a positive effect on the stock price.
H_4There is positive influence between firm efficiency onfirm value.

Effect of firm size on firm value
Firm size is considered one of the factors that can affect profitability because the bigger firm size then the easier the company in obtaining the provision of funds. Rajan and Zingales (2001), in Kusuma (2005), mention that according to the critical theory, the greater the scale of the company then the profitability will also increase, but at a certain point or amount of size the company will eventually lower the profit. The critical theory emphasizes control by the owner of the company against the company's resources such as assets, technology, intellectual property as factors that determine the firm size. With the availability of large corporate resources, the company can fulfill the demand of products that will expand the market share, so that the sales will be increased and the company can cover the costs incurred for the process production. Sharma (2011) stating that firm size is associated with various capabilities of the company in resolving various payments so that the aspect brings issues to the motion of stock prices in the market.

H_5There is positive influence between firm size on firm value.

To measure whether the independent variables jointly or simultaneously have a significant effect on the dependent variable, can be submitted hypotheses sixth (H_6) as follows:

H_6 Leverage, dividend policy, effectiveness, efficiency, and firm size simultaneously afeect on firm value.
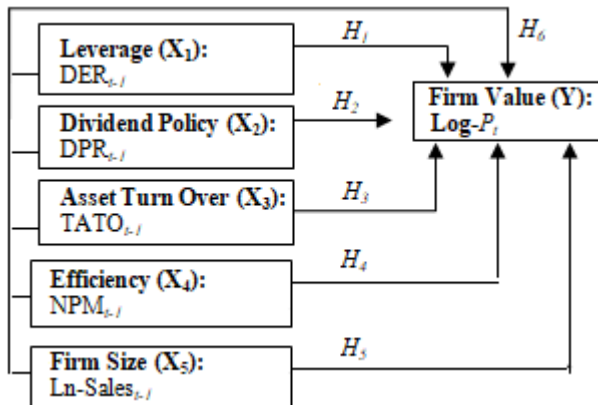
4. Theoretical Framework

Figure 1: Theoretical framework

Figure 1 above describing the effect of leverage, dividend policy, asset turn over, efficiency, and firm size on firm value. The independent variable in this study is DER, DPR, TATO, NPM, and Ln-Sales, while the dependent variable is the stock price. In this study objectives to be achieved is to determine the effect of leverage, dividend policy, asset turn over, efficiency, and firm size consisting of DER, DPR, TATO, NPM and Ln-Sales either jointly or partially to stock price at sub sector Plantations Companies listed in Indonesia Stock Exchange (IDX) in the period of 2009-2014.

5. Mathematical Model

The equation used is:
$$P_{it} = \alpha + \beta_i \, DER_{it-1} + \beta_2 \, DPR_{it-1} + \beta_3 \, TATO_{it-1} + \beta_4 NPM_{it-1} + \beta_5 Ln\text{-}Sales_{it-1} + e_i$$

Where :
P_{it} = Log. Stock Price (closing price)year to ke t
DER_{it-1} = *Debt Equity Ratio*in the previous year
DPR_{it-1} = *Dividend Pay-out Ratio*in the previous year
$TATO_{it-1}$ = *Total Aset Turnover*in the previous year
NPM_{it-1} = *Net Profit Margin Ratio*in the previous year
$Ln\text{-}Sales_{it-1}$ = *Log. Natural Sales*in the previous year
α = *intercept*
$\beta_i, \beta_2, \beta_3, \beta_4, \& \beta_5$ = slope value DER, DPR, TATO, NPM dan *Ln-Sales* affect on stock price
e_1 = An error that has an award value of 0

Testing of the influence of DER,DPR, TATO, NPM, and Ln-Sales against Ln-Price. This test is also done using Common/Pooled Least Squares, Fixed Effect models, and Random Effect models.

Operational Definition and Measurement of Variables
The research variables tested in this study are dependent variable that is firm value and independent variable include leverage, dividend policy, effectiveness, effiency, and size.

Table 1: The operational definition of the variables

Variable	Measurement	Formula	Refference
Leverage	*Debt Equity Ratio* (X_1)	$DER = \dfrac{Total\ Debt}{Total\ Equity}$	Irham (2014)
Dividend Policy	*Dividend Pay out Ratio* (X_2)	$DPR = \dfrac{Dividend}{EAT}$	Irham (2014)
Effectiveness	Total Aet Turnover (X_3)	$TATO = \dfrac{Sales}{Total\ Aset}$	Irham (2014)
Efficiency	Net Profit Margin (X_4)	$NPM = \dfrac{Net\ Profit}{Sales}$	Irham (2014)
Size	Sales (X_5)	*Ln-Sales*	Sujoko and Soebiantoro (2007)
Firm Value	(Stock Price) (Y)	*Ln-Stock Price*	Gujarati (2006)

6. Analysis and Discussion

This research is research through field studies with the intent to test the influence between variables. The correlational is looking for a relationship between variables studied using secondary data that has been provided by a third party and does not originate from a direct source, where the time dimension of this research involves a certain period of time (time series) with many companies (cross section), so the hypothesis testing is done by way of pooled data. Descriptives is a formulation of issues that pertain to the question of the self-contained variable (Y) and the Independent variable (X) either one variable or more. The correlational relationship between variables is researched and explained.

The research population is 18 (eighteen) plantation companies in the Indonesia Stock Exchange from 2009 to 2014. Sampling is done using the purposive sampling method, with the following criteria: (1) The company's financial statements (excluding capital change reports) are available in succession from 2009 to 2014. (2) The sample company publishes the audited financial statements with the fiscal year ended on December 31st. (3) Stock price Data is

available during the observation period. Based on these conditions, only 8 plantation companies are eligible so that the sample of the research object is 8 (eight) plantation companies.

The data used in this research is secondary data, which is data that has been provided by third parties and does not originate from direct sources. The Data used in this research is obtained through the site: http//www. idx. Co. ID, Indonesian Capital Market Directory (ICMD). The types of data used in this study are: (1) quantitative data, i.e. data that

is shaped by numbers or qualitative data that is applied. The quantitative data used in this research is the financial report and stock price list of the closure of the IDX-listed plantation companies from 2009-2014. (2) qualitative data, i.e. word-shaped data, sentences, schemes or drawings. The qualitative Data used in this study is a list of companies listed on IDX from 2009-2014.

7. Statistical Data Descriptive

Table 2: Descriptive statistics of research Data

Description	DER	DPR	TATO	NPM	SALES	PRICE
Mean	0.436720	0.283380	0.601142	0.138320	5.980570	4884.0750
Median	0.470850	0.248200	0.540700	0.180400	3.073417	1782.500
Maximum	0.729800	1.192700	2.151600	0.501100	31.67622	26200.0000
Minimum	0.140200	0.000000	0.115300	-1.332400	0.405328	50.000000
Std. Dev.	0.186826	0.298045	0.482414	0.280725	7.647244	7.6315744
Skewness	-0.225923	1.342279	1.371794	-3.821939	2.019121	1.9378
Kurtosis	1.722969	4.632560	4.598267	20.38209	6.268280	2.5262103
Observations	40	40	40	40	40	40

Source: Eviws 6 Output Results

From table 2it is known that the average total debt amount is still below its total equity only 43,67%,here are 3 companies (37.5%) The DER below averages are PT AALI, PT LSIP and PT. SGRO while the other 5 companies are above average.The highest value of DER is 72.98% and the lowest 14.02%.

The amount of net profit shared as an average dividend of 28.34%, there are 1(one) company that do not pay dividend and 1 company once in 5 (five) years paying dividend and 5 (five) companies for 5 (five) years continue to pay dividends.The highest value of DPR is 119.27% and the lowest 0%.

Average proportion of assets owned can only generate total sales of 60% of the total assets. There are 4 (four) or 50% companies have below average TATO, while the other 50% are above average. The highest value of TATO is 215,16% and the lowest 11.53%.

The average amount of NPM is 13.83%, there are 3 or 37,5% companies that have NPM below average and 1(one) of them suffer losses, while the other 5 (five) companies have NPM above average. The highest value of NPM is 50.11% and the lowest (113,24)%.

The average sales amount is Rp 5.9 trillion there are 2 companies that have above average sales, while 6 companies have a sales value below average. The highest sales is Rp 31,6 trillion and the lowest Rp 405,3 billion.

Average net profit on sales is 14% and the average market price of Rp 4.884 (four thousand and eight hundred eighty four) each sheet. Only 1 (one) company (PT AALI) has a market price above average, while 7 (seven) companies stock market prices are below average. The highest market price is Rp 26.200 and the lowest Rp 50.

8. Selection of Regression Models

Chow Test In Table 3, you can see the Prob value. Cross-section Chi-square of 0.00 <0.05. Prob. value. Chi-square cross-section is smaller than 0.05, then H0 is rejected and the regression model that is right to use in this study is the fixed effect model.

Table 3: Chow test

Redundant Fixed Effects Tests			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	20.655239	(7,27)	0.0000
Cross-section Chi-square	73.970066	7	0.0000

Source: Eviws 6 Output Results

Hausman Test In Table**4**The results of the Hausman test indicate the Prob value. The random cross-section in this study was 0.0001. This value is smaller than 0.05, so H0 is rejected and the regression model that is right to use in this study is a fixed effect model.

Table 4: Hausman test

Correlated Random Effects - Hausman Test			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	25.357389	5	0.0001

Source: Eviws 6 Output Results

Lagrange Multiplier test The test results of lagrange multiplier in Table 4 can be seen from the Prob value. Breusch-Pagan (BP-value) obtained is 0.0000. This value is smaller than 0.05 so Ho is rejected and the right regression model to be used is a random effect model.

Table 5: Lagrange Multiplier test

Lagrange multiplier (LM) test for panel data			
Sample: 2010 2014			
Total panel observations: 40			
Probability in ()			
Null (no rand. effect)	Cross-section	Period	Both
Alternative	One-sided	One-sided	
Breusch-Pagan	12.51394	0.158077	12.67202
	(0.0004)	(0.6909)	(0.0004)

Source: Eviws 6 Output Results

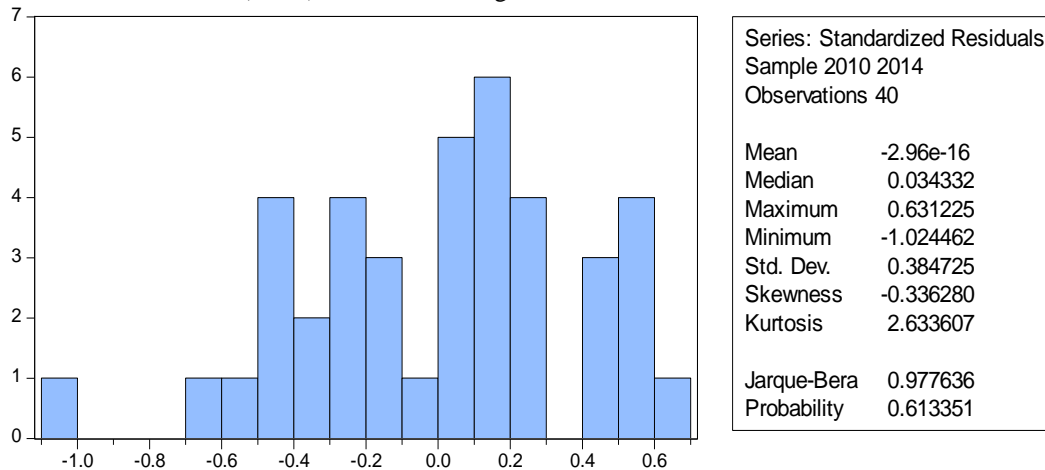Based on testing with the Lagrange Multiplier (LM) test above, the result was that the P-value was 0.0004< 0.05, thus the selected Random Effect Model (REM) model. Referring to the results of a statistical test of Chow test, Hausman Test and Lagrange Multiplier (LM) test, it is known that the Fixed Effect Model (FEM) is more widely elected than other models thus the Fixed Effect Model (FEM) model Used on this research.

Classic Assumption Test
To find out if data analysis for hypothesis testing can be continued, a few data analysis techniques are required to test the analysis requirements of the determination of normality, heteroskedastisity, multicolinearity and autocorrelation.

Figure 2: Distribution testing of research data
Source: Eviws 6 Output Results

Based on image 2it can be noted that the research data is normal distribution.

Table 6: Heteroskedastisity Test

Heteroskedasticity Test: White			
F-statistic	1.308442	Prob. F(20,19)	0.2808
Obs*R-squared	23.17424	Prob. Chi-Square(20)	0.2803
Scaled explained SS	13.67606	Prob. Chi-Square(20)	0.8465

Source: Eviws 6 Output Results

Referring to table 6 can be noted that the results of the White test are above, known Probability F value is 0.2808 > 0.05. Thus the decision is that this panel's data regression model does not suffer from heteroskedastisity issues

Table 7: Multicolinearity Test

	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
C	1.922671	452.9789	NA
DER	0.187233	9.914380	1.501185
DPR	0.068330	2.687085	1.394301
TATO	0.041860	5.801687	2.237776
NPM	0.077463	1.751438	1.402269
SIZE	0.008712	460.6116	2.913974

Source: Eviws 6 Output Results

Based on table 7. The test results above, it is known that the Variance Inflation Factors (VIF) value in each independent variable has a value of less than 10 (VIF < 10), so it is stated that in the model there is no problem of multicolinearity. The autocorrelation test is assumed to be an element related to observation that is not influenced by the disturbansi or interference associated with any other observation. An autocorrelation test aims to test whether in a linear regression model there is a correlation between disruptor errors in the T-period with a T-1 (before) error. If there is a correlation, there is an autocorrelation problem. In this study autocorrelation test was performed using Durbin-Watson test. The test results are as follows:

Table 8: Autocorellation Test

R-squared	0.959236	Mean dependent var	3.146750
Adjusted R-squared	0.941118	S.D. dependent var	0.755875
S.E. of regression	0.183418	Akaike info criterion	-0.297144
Sum squared resid	0.908335	Schwarz criterion	0.251741
Log likelihood	18.94289	Hannan-Quinn criter.	-0.098685
F-statistic	52.94515	Durbin-Watson stat	2.301390
Prob(F-statistic)	0.000000		

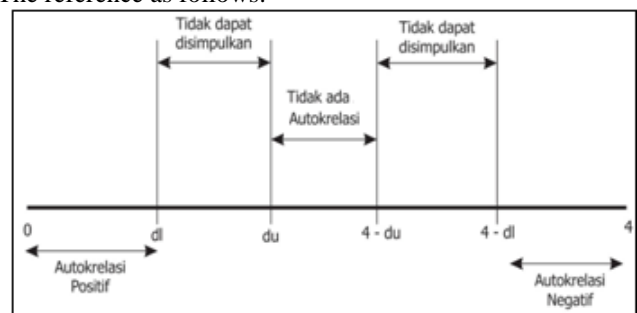Source: Eviws 6 Output Results

The reference as follows:

Figure 3: Reference value of Durbin-Watson

Based on the results of the above test, obtained the result that the value of Durbin Watson is 2.3014, this means the value of Durbin-Watson is at n = 40 and k = 5 known Dl = 1.2305 and Du = 1.7859 until 4-Du = 2.2141 and 4-Dl = 2.7695 until Du ≤ d ≤ 4-du , thus on the model there is no autocorrelation. Therefore on the basis ofa series of classic assumptions above, it can be noted that the statistical model has passed the classical assumption test.

Panel Data Regression Analysis
The results of the selection of the regression model show that the fixed effect model is the most appropriate model used in this study. The results of panel data regression analysis with a fixed effect model can be seen in Table 9

Table 9: Results of Fixed Effect Model Data Panel Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Dependent Variable: FV				
Method: Panel Least Squares				
Sample: 2010 2014				
Periods included: 5				
Cross-sections included: 8				
Total panel (balanced) observations: 40				
C	11.15700	2.565072	4.349584	0.0002
DER	1.069394	0.716896	1.491701	0.1474
DPR	0.157716	0.140721	1.120771	0.2723
TATO	0.450807	0.229825	1.961528	0.0602
NPM	0.755697	0.194477	3.885780	0.0006
SIZE	-0.595847	0.186111	-3.201562	0.0035
	Effects Specification			
Cross-section fixed (dummy variables)				
R-squared	0.959236	Mean dependent var		3.146750
Adjusted R-squared	0.941118	S.D. dependent var		0.755875
S.E. of regression	0.183418	Akaike info criterion		-0.297144
Sum squared resid	0.908335	Schwarz criterion		0.251741
Log likelihood	18.94289	Hannan-Quinn criter.		-0.098685
F-statistic	52.94515	Durbin-Watson stat		2.301390
Prob(F-statistic)	0.000000			

Source: Eviws 6 Output Results

The results of panel data analysis in Table 9 can form panel data regression equations as below:
$VFit = 11,16 + 1,07 DER_{it-1} + 0,16 DPR_{it-1} + 0,45 TATO_{it-1} + 0,76 NPM_{it-1} - 0,59 Uk_{it-1} + \varepsilon$

The interpretation of the regression equation above is as follows:
1) **Constants**
   The stock price value is 11.16, if the variables of DER, DPR TATO, NPM, and Size do not affect on stock price.
2) **Leverage on firm value**
   The coefficient of leverage is 1,07, meaning that if leverage has increased by one unit then stock price will increase by 1,07 assuming the value of other variables remains.
3) **Dividend policy on firm value**
   The coefficient of leverage is 0,16, meaning that if DPR has increased by one unit then stock price will increase by 0,16assuming the value of other variables remains.
4) **Effectiveness on firm value**
   The coefficient of leverage is 0,45, meaning that if TATO has increased by one unit then stock price will

increase by 0,45assuming the value of other variables remains.
5) **Efficiency on firm value**
   The coefficient of leverage is 0,76, meaning that if NPM has increased by one unit then stock price will increase by 0,76assuming the value of other variables remains.
6) **Firm size on firm value**
   The coefficient of leverage is -0,59, meaning that if Size has increased by one unit then stock price will decrease by 0,59assuming the value of other variables remains.

9. Hypothesis Testing

Determination Test
The coefficient of determination in this study is used to determine the amount of contribution given by the independent variable to the dependent variable. The results obtained by the R-square value of 0.9592 shows that the independent variables (leverage, dividend policy, effectiveness, efficiency, and firm size) simultaneously provide influence on firm value of 95.92% while the rest is influenced by other variables outside the research.

F Test
Regression analysis results in table 9 can be seen the significant value of Prob (F-statistics) obtained at 0.000000. This value is smaller than 0.05, H0 is rejected and it can be concluded that the independent variables (leverage, dividend policy, effectiveness, efficiency, and firm size) simultaneously affect on firm value.

T test
P-value value of the leverage variable is 0.1474 with a positive coefficient, the value is greater than 0.05 then H_0 is accepted and H_1 is rejected so that it can be concluded that leverage (DER) has no effect on firm value. P-value value of the dividend policy variable is 0.2723 with a positive coefficient, the value is greater than 0.05 then H_0 is accepted and H_1 is rejected so that it can be concluded that dividend policy (DPR) has no effect on firm value.P-value value of the effectiveness variable is 0.0602 with a positive coefficient, the value is greater than 0.05 but smaller than 0,07 then H0 is rejected and H1 is accepted so that it can be concluded that effectiveness (TATO) has a significant positive effect on firm value. P-value value of the efficiency variable is 0.0006 with a positive coefficient, the value is smaller than 0.05 then H0 is rejected and H1 is accepted so that it can be concluded that efficiency (NPM) has a significant positive effect on firm value. The value of the P-value of the firm size variable is 0.0035 with a negative coefficient, the value is smaller than 0.05 then H0 is rejected and H1 is accepted so it can be concluded that firm size (Ln-Sales) has a significant negative effect on firm value.

10. Discussion

Effect of leverage on firm value
The first hypothesis testing showed that there has no influence between Debt to Equity Ratio (DER) on stock prices. The results of this study were different from those done by Kuban (2010), Sasongko,Noer and Wulandari,Nila, (2006) and Paramitha (2012) stating that Debt to Equity

Ratio (DER) has a negative effect on the price of shares. The findings in this study differed from the theory expressed by Ang (1997) stating that the greater the value of DEBT to Equity Ratio (DER) signifies that the structure of the capital is more utilizing the debts Relative to equity. The higher the Debt to Equity Ratio (DER) reflects the company's relatively high risk, consequently investors tend to avoid stocks that have a high Debt to Equity Ratio (DER) value. The decline in investor interest in instilling this fund will have an impact on the company's stock price decline. The low DER condition which averages only 0.43 times does not give a noticeable impact on the signal stock price to the investors.

Effect of dividend policy on firm value
The second hypothesis test shows that there is no positive influence between the Dividend Pay-out Ratio (DPR) against the stock price. The results of this study did not support the research of Sugeng (2009) in his research titled: Sustainability Dividend Initiation Policy on Go-Public companies in Indonesia, found evidence that hypotheses stating that there is significant positive influence of the sustainability of dividend initiation policy variable on this stock performance proved to be true. Dhanani (2005) found that the dividend policy is functioning in raising the company's market value. Based on the thought it can be stated that the market reaction to the plantation company is not affected by the dividend policy so that management should use the profit to invest or replacing less productive crops.

Effect of effectiveness on firm value
The third hypothesis test shows that there is no effect of total turnover asset (TATO) on the stock price. However, if the significant level adjusted to 7%, there is an influence between the total turnover asset (TATO) to the stock price. The results of this study support the theory that total asset turnover is a ratio used to assess the effectiveness and intensity of the assets in generating sales Wild, at al, (1997) and Barus and Leliani (2013). This will give the investor a positive signal to influence the good perception of the stock so that the investors are interested in maintaining and or adding the relevant shares. Plantation management must continuously innovate the replacement of long-generation crops with a new generation whose productivity is higher and resistant to disease.

Effect of efficiency on firm value
The fourth hypothesis test shows that there is a positive significant effect of net profit margin (NPM) on stock prices. The results of this research support to Beccalli et al. (2006) find that changes in efficiency are reflected in changes in stock prices. Kirkwood and Nahm (2006) stating that changes in the company's efficiency will be reflected in the change in the stock price, resulting in a positive effect on the stock price. The larger the NPM, the more productive the company's performance will be, thus increasing the investor's confidence to invest in the company. This ratio indicates how much net profit percentage earned from each sale. The larger the ratio, the better the company's ability to get a high profit. The relationship between tax remaining net profit and net sales shows the ability to efficiently control the company in order to generate a certain profit as a reasonable compensation for the owner who has provided its

capital for a risk. The result of the calculation reflects the profit net per sales rupiah. Capital market investors need to know the company's ability to generate profits. Knowing that the investor can assess whether the company is profitable or not.

Effect of firm size on firm value
The fifth hypothesis test shows that there is a negative significant effect firm size on stock price. The results of this study do not support Sharma (2011), Rajan and Zingales (2001), in Kusuma (2005), and Sujoko and Soebinatoro (2007) who consistently find out the results that the company's size has a positive and significant impact on the company's value, it shows the greater the company, the better the value of its company. This demonstrates the nature of the plantation company that the current investment will only produce the next 3 or 4 years, so if the investment is not feasible but continues to be implemented it will decrease the company's performance. In addition to the uncertainty of commodity prices, climate change impacting droughts should be prepared with management. Issues of declining commodity prices, climate change, labor wage increases will have an impact on the price weakening of plantation stocks prices. It also as plantation companies take a long time to convert from one commodity to another more profitable.

Effect of leverage, dividend policy, effectiveness, efficiency, and firm size simultaneously on firm value. The sixth hypothesis test show that simultaneously there are significant effect of of leverage, dividend policy, effectiveness, efficiency, and firm size on firm value.

11. Conclusions and Recommendations

In general debt continues to increase, the payment of dividends are stagnant, while the condition of asset turnover, profitability, and the size of the company decreased which resulted in declining stock price. Leverage and dividend payout variables have no effect on firm value. Asset turnover and net profit margin have positive effect on firm value, while firm size has a negative effect on firm value. Simultaneously leverage, dividend policy, effectiveness, efficiency, and firm sizehave significant effect on firm value.

Given the conditions of relatively low debt levels, the addition of debts used to replace more superior crops and or convert more profitable commodities and build integrated garden and plant infrastructure will making plantation companies highly competitive.

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