

Analyzing Sustainable Growth Rate of the Firms in Kehati Sustainable and Responsible Investment Index in Indonesia

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Abstract

The objectives of the research are to analyze the sustainable growth rate of the firms, to examine to what extent it is affected by stock price, return on equity, and dividend payout ratio, and to what extent stock price and dividend payout ratio influenced by return on equity.

Data have been collected from the Indonesia Stock Exchange (IDX) within a period of 2010 to 2013. Research population is Kehati Sustainable and Responsible Investment Index, which comprises 25 companies from various industrial sectors. We have considered using 15 companies from the index as our sample.

From the results of regression analysis we concluded that stock price has positive significant regression coefficient on sustainable growth rate, dividend payout ratio has negative significant regression coefficient on sustainable growth rate, return on equity has positive significant regression coefficient on dividend payout ratio and stock price. Finally, return on equity has positive regression coefficient on sustainable growth rate, however, the result is not significant.

Keywords : Sustainable Growth Rate, Dividend Payout Ratio, Return on Equity, and Stock Price

1. Background of the Research

Sustainable growth rate is the maximum growth rate that a firm can sustain without having to increase financial leverage. After the firm has passed this rate, it must borrow funds from another source to facilitate growth.

In the basic term, the growth is often limited by the amount of equity in the business. The more equity a business has, the more potential businesses have for growth. However, if the business is growing too fast, then there may not be enough equity to sustain the growth. If the business is growing too slowly, it may start to become stagnant.

Higgins explained that the sustainable growth concept is very important because it forced the management to consider whether the company's growth strategy was compatible with the ability of the company's growth. A company with excellent growth opportunities but without sufficient financial resources in long-term period to exploit opportunities will not grow. However, a company with the necessary financial infrastructure in place to pursue high growth opportunities but without the long-term ability to identify and take benefit opportunities also will not grow.

According to Van Horne, the sustainable growth rate is the percentage of the maximum growth in sales that may occur in accordance with the target of the operation, debt, and the dividend ratio. With the model of sustainable growth, one can determine whether the purpose of the company's sales growth is consistent with the operating characteristics and financial goals.

Therefore, through this research, we will examine the sustainable growth rate of the firms in Indonesia stock exchange. The objective is to analyze sustainable growth rate of each firm and to analyze to what extent it is affected by stock price, return on equity, and dividend payout ratio,

and to what extent stock price and dividend payout ratio influenced by return on equity.

The rest of this paper is structured in 5 sections. Section 2 reviews relevant literature on the theory, highlights some of the empirical findings of other similar studies, and hypotheses based on these studies. Section 3 discusses the research methodology and data used for the study. Sections 4 and 5 present the study results and conclusions respectively.

2. Theories and Previous Research

2.1. Theories

In Brealey, Myers, and Marcus (2001), payout ratio is the fraction of earnings paid out as dividends while plowback ratio is fraction of earnings retained by the firm and plowback into plant and equipment.

Plowing earnings back into new investments may result in growth in earnings and dividends but it does not add to the current stock price if that money is expected to earn only the return that investors require. Plowing earnings back does add to value if investors believe that the reinvested earnings will earn a higher rate of return.

The higher the fraction of earnings plowed back into the company, the higher the growth rate. By the way, growth rates calculated as :

$g = \text{return on equity} \times \text{plowback ratio}$

as the plowback ratio is also called the earnings retention ratio.

Therefore

$g = \text{return on equity} \times \text{retention ratio}$

These growth rates are often referred to as sustainable growth rate.

Van Horne (1998) has defined Sustainable Growth Rate as the maximum annual percentage increase in sales that can be achieved based on target operating, debt and dividend-payout ratios. Given this definition, a company can determine if their projected sales are a realistic goal.

According to a Deloitte Research Viewpoint, sustainable growth rate, is the maximum pace at which a company can grow revenue without depleting its financial resources. Sustainable growth rate is calculated by multiplying return on equity, (using beginning-of period equity) by the company's earnings retention rate ($1 - \text{dividend payout ratio}$).

The sustainable growth rate is particularly valuable because it combines companies' operating (profit margin and asset efficiency) and financial (capital structure and retention rate) elements into one comprehensive measure. Using sustainable growth rate, managers and investor can begin to gauge whether the firm's future growth plans are realistic based on their current performance and policy. In this way, sustainable growth rate can provide managers and investors with insight into the levers of corporate growth. Industry structure, trends, and competitive positioning can then be analyzed to find and exploit specific opportunities.

Drake defined sustainable growth as the growth the company is capable of if it does not alter its capital structure. A company's capital structure is its mix of debt and equity that is used to finance the company long-term. Therefore, sustainable growth is determined assuming that the company's capital structure remains the same. A company will try to maintain a relatively constant capital structure, even though there will be slight year-to-year deviations in the actual capital structure.

2.2. Previous Research

There are many previous research that have been conducted. Based on the study of Rahim and Saad (2014) that firm's profitability shown a positive significantly to firm sustainable growth rate. The higher the level of profitability in the company showed that the sustainable growth of companies will increase and comply with Johnson and Soenen (2003) found that large profitable firms with efficient working capital management and a certain degree of uniqueness regarding their business are the most successful companies with degree of sustainable growth rate high.

The research of Seens (2013) addressed the question on how much growth could Canadian SMEs financially support. Findings from the study showed that: [a] changes in sustainable growth rates for Canadian SMEs over the 2000–2010 period were driven primarily by changes in net profit margins with some minor influence by retention rates and financial leverage. [b] there were no statistically significant differences in sustainable growth rates among small, medium-and large-sized businesses, with all businesses capable of sustaining an average rate of growth in sales of between 7 percent and 7.6 percent. [c] Sustainable growth rates for SMEs in each sector trended in the same basic

pattern over the period, rising between 2000 and 2007, falling between 2008 and 2009 and then rebounding in 2010. SMEs in the construction sector had the highest average sustainable growth rate over the period (10 percent). [d] The analysis suggests that large-sized businesses are more likely to grow at their sustainable growth rate. [e] While SMEs in the primary sector and the professional, scientific and technical services sector grew at their sustainable growth rates, for all other sectors actual growth fell significantly below sustainable growth.

The research of Amouzes, Moeinfar, Mousavi (2011) aims to examine the relation between sustainable growth rate and liquidity and firm performance for a sample of 54 firms listed in the Iran financial market during 2006-2009. They use a linear regression analysis to examine the association between the deviation of actual growth rate from sustainable growth rate and return on assets, price to book value, current and Acid ratios. The study shows that the deviation of actual growth rate from sustainable growth rate is having relationship with return on assets and price to book value ratios. Also, they find no significant association the deviation of actual growth rate from sustainable growth rate and current and acid ratios. They suggested that future research might also be directed towards the effect of deviation of actual growth rate from sustainable growth rate on liquidity and firm performance using larger sample and longer time series.

2.3. Hypotheses

Based on theories and previous research, the hypotheses are formulated as follow :

1. There is a significant effect of stock price on sustainable growth rate.
2. There is a significant effect of return on equity on sustainable growth rate.
3. There is a significant effect of dividend payout ratio on sustainable growth rate.
4. There is a significant effect of return on equity on dividend payout ratio.
5. There is a significant effect of return on equity on stock price.

3. Research Methodology

3.1. Population

As of June 8, 2009, in an effort to develop its programs, Kehati has made a close relationship with business sector and in cooperation with the Indonesia Stock Exchange (IDX) has launched Kehati Sustainable and Responsible Investment Index, following the standard and regulation of Sustainable and Responsible Investment.

Basic year used as initial index year with 100 basis was December 30, 2006 and was publicized by IDX as Kehati Sustainable and Responsible Investment Index at the position of 116,946. By launching this index, it was expected that the public would be made aware of the presence of an index showing which companies were regarded as beneficial and constantly managing sustainable development.

The objective of the index establishment is to materialize biodiversity conservation programs by raising awareness and consciousness toward biodiversity, among the public, business sector and capital market, and provide an open information to the public at large in identifying the selected companies rated by the index, which are considered to have various kinds of consideration in running their business in relation to environmental concern, business management, community involvement, human resources, human rights, their business behavior and way of operation with internationally accepted business ethics.

The index has picked 25 selected companies considered eligible to meet Kehati Index criteria so that they can be used as guidance for investors. The presence of those companies will be evaluated twice a year, in April and October, and the result will be publicized by IDX, which can be followed through www.idx.co.id.

3.2. Sample and Data Collection

Data have been collected from the Indonesia Stock Exchange (IDX) within a period of 2010 to 2013. Our research population is Kehati Sustainable and Responsible Investment Index, which comprises 25 companies from various industrial sectors. We have considered using 15 companies from the index as our sample.

Consideration to choose firms from population to be included into the sample is firms which are consistently listed in Kehati Sustainable and Responsible Investment Index during the period of 2010-2013.

3.3. Data Analysis

We use correlation and regression test to analysis the data. Correlation coefficient is a descriptive measure of the strength of linear association between two variables, X and Y. Whereas regression analysis, which can be used to identify how variables are associated with one another, cannot be used as evidence of a cause-and-effect relationship.

Our regression models are:

$$Y = \beta_0 + \beta_1 * X_1 + \beta_2 * X_2 + \beta_3 * X_3 + \epsilon \quad [1]$$

Where :

Y = Sustainable growth rate

X1 = Stock Price

X2 = Return on equity

X3 = Dividend payout ratio

$$Y = \beta_0 + \beta_1 * X_1 + \epsilon \quad [2]$$

Where :

Y = Dividend payout ratio

X1 = Return on equity

$$Y = \beta_0 + \beta_1 * X_1 + \epsilon \quad [3]$$

Where :

Y = Stock Price

X1 = Return on equity

3.4. Variable Measurement

We measure the variables as follows :

- a. Sustainable growth rate = return on equity x retention rate

Where : The retention rate is the percentage of earnings retained by the company, that is not paid out in the form of dividends.

The retention rate = 1 - dividend payout ratio.

- b. The return on equity is the return per dollar of owners' equity; the return is calculated as the ratio of net income to book value of equity.

- c. Dividend payout ratio

Indicates the percentage of each dollar earned that is distributed to the owners in the form of cash. It is calculated by dividing the firm's cash dividend per share by its earning per share.

- d. Stock price is measured by using yearly stock price.

4. Results and Analysis

4.1. Descriptive Analysis

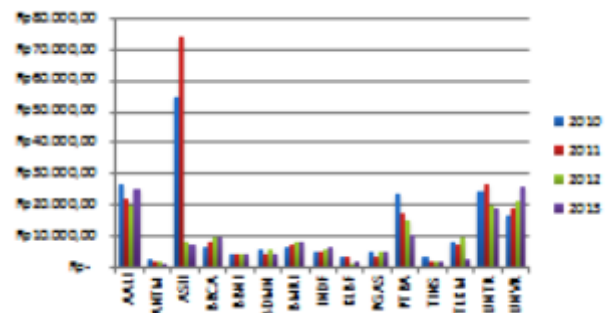


Figure 1 : Stock Price of the Firms in Kehati Sustainable and Responsible Investment Index in 2010-2013

Based on the graphic above we can see that ASII has the highest stock price in 2010-2011, however stock price significantly decreased in 2012-2013. UNVR's stock price consistently increased during 2010-2013.

AALI, ASII, PTBA, UNTR, and UNVR are the firms with the highest stock price. There are 6 firms that have highest stock price in 2010 (AALI, ANTM, BDMN, KALF, PTBA, TINS) ; 3 firms have highest stock price in 2012 (BBNI, PGAS, TLKM) ; 4 firms have highest stock price in 2013 (BBKA, BBNI, INDF, UNVR) ; and 2 firms have highest stock price in 2011 (ASII, UNTR). It implies that most of the firms reach the highest stock price in 2010 during the period of 2010-2013.

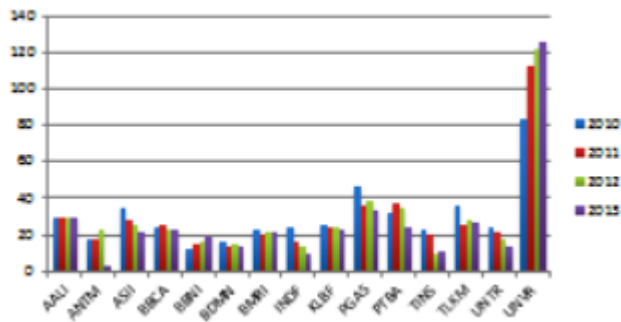


Figure 2 : Return On Equity of Firms in Kehati Sustainable and Responsible Investment Index in 2010-2013

Based on the graphic above we can see that UNVR has the highest return on equity during 2010-2013, and within that period its return on equity is consistently increased. AALI has return on equity that consistently maintained.

There are 9 firms with highest return on equity in 2010 (ASII, BDMN, BMRI, INDF, KLBF, PGAS, TINS, TLKM, UNTR) ; one firms have highest return on equity in 2012 (ANTM) ; 2 firms have highest return on equity in 2011 (BBKA, PTBA) ; 2 firms have highest return on equity in 2013 (BBNI, UNVR). It implies that those firms achieve the highest profitability ratio in 2010 during the period of 2010-2013.

Return on equity (ROE) measures the rate of return for ownership interest (shareholders' equity) of common stock owners. It measures the efficiency of a firm at generating profits from each unit of shareholder equity, also known as net assets or assets minus liabilities. ROE shows how well a company uses investments to generate earnings growth. ROEs 15-20% are generally considered good. Overall, ROE of most of the firms are considered good.

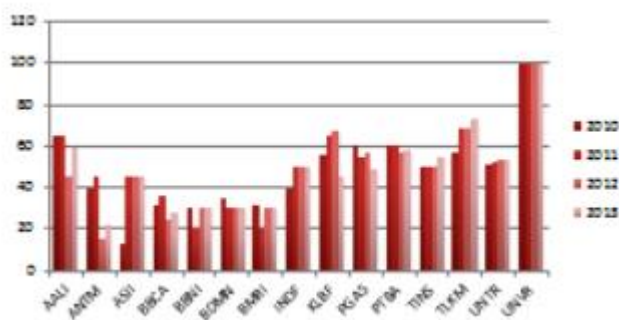


Figure 3 : Dividend Payout Ratio of firms in Kehati Sustainable and Responsible Investment Index in 2010-2013

Based on the graphic above we can see that UNVR has the highest dividend payout ratio during 2010-2013, and within that period its return on equity is consistently stable. ASII, INDF, TINS, TLKM, UNTR have dividend payout ratio that consistently increased within 2010-2013.

There are 3 firms with highest dividend payout ratio in 2010 (BDMN, BMRI, PGAS) ; 2 firms have highest dividend payout ratio in 2012 (KLBF, UNTR) ; 3 firms have highest dividend payout ratio in 2011 (AALI, ANTM, ASII, BBKA, INDF, PTBA, UNVR) ; and 2 firms have highest dividend payout ratio in 2013 (BBNI, TINS, TLKM).

In 2011 there are 7 firms that have the highest dividend payout ratio. The argument that the firms attract shareholders whose preferences for the payment and stability of dividends correspond to the payment pattern and stability of the firm itself. Meanwhile, investors see current dividends as less risky than future dividends or capital gains.

According Van Horne, a target dividend-payout ratio is a percent of earnings the company pays out over time. The target might be 30 percent, for example, and the company would endeavor to pay out this ratio not every year but, say, over several years. The actual dividend is raised only when the firm feels confident that it can maintain the new, higher level. An extra dividend is over and above the regular quarterly dividend, typically in a good earnings period. It is not a permanent increase.

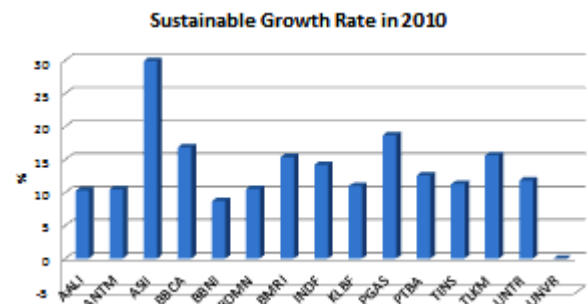


Figure 4 : Sustainable Growth Rate of Firms in Kehati Sustainable and Responsible Investment Index in 2010

ASII has the highest sustainable growth rate in 2010, followed by PGAS and BBKA.

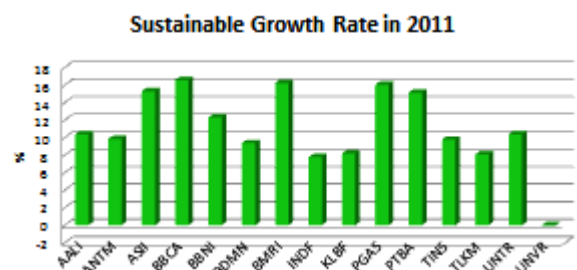


Figure 5 : Sustainable Growth Rate of Firms in Kehati Sustainable and Responsible Investment Index in 2011

BBKA has the highest sustainable growth rate in 2011, followed by BMRI, PGAS, ASII, and PTBA.

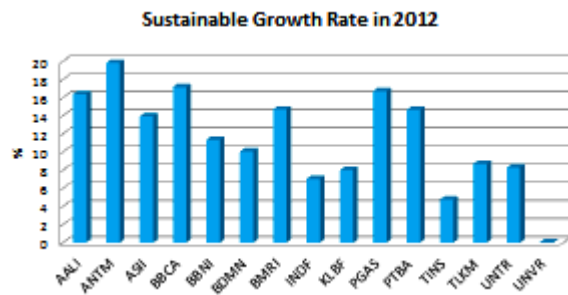


Figure 6 : Sustainable Growth Rate of Firms in Kehati Sustainable and Responsible Investment Index in 2012

ANTM has the highest sustainable growth rate in 2012, followed by BBKA, PGAS and AALI.

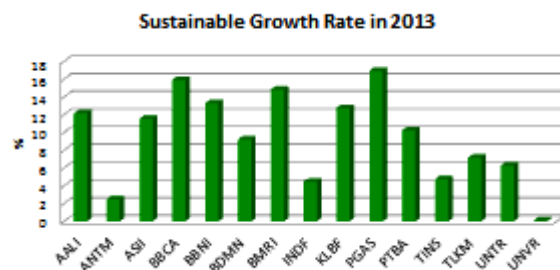


Figure 7 : Sustainable Growth Rate of Firms in Kehati Sustainable and Responsible Investment Index in 2013

Based on the graphic above we can see that PGAS has the highest sustainable growth rate in 2013, followed by BBKA and BMRI. There are 7 firms with highest sustainable growth rate in 2010 (ASII, BDMN, INDF, PGAS, TINS, TLKM, UNTR) ; 2 firms have highest sustainable growth rate in 2013 (BBNI, KLPF) ; 3 firms have the highest sustainable growth rate in 2012 (AALI, ANTM, BBKA) ; and 2 firms have highest sustainable growth rate in 2011 (BMRI, PTBA).

In 2010 there are 7 firms with highest sustainable growth rate. It implies that growth of the company is capable of if it does not alter its capital structure. A company's capital structure is its mix of debt and equity that is used to finance the company in the long-term. If a company changes its capital structure, this affects its sustainable growth: increasing its financial leverage increases its sustainable growth, ceteris paribus, and decreasing its financial leverage, ceteris paribus, lowers its sustainable growth.

To maintain that kind of growth, firms would have to become more profitable (which would boost its return on equity) or pay out fewer dividends as a percentage of earnings (which would reduce the dividend-payout ratio).

4.2. Inference Analysis

Regression Results

Regression results for testing hypotheses 1-5 are as follows.

Table 1: Regression Results of Hypotheses Testing 1-3

Coefficients ^a						
Model	Unstandardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error			Tolerance	VIF
1 (Constant)	19.236	1.500	12.821	.000		
Dividend payout ratio	-.208	.039	-5.393	.000	.460	2.172
Return on earning	.035	.033	1.047	.299	.430	2.324
Stock price	.000	.000	2.470	.017	.902	1.108

a. Dependent Variable: sustainable growth rate

Stock price has positive significant regression coefficient on sustainable growth rate, with 0.017 level of significance and 2.470 t-values. This suggests that the higher the stock price the faster the sustainable growth rate.

Return on earning has positive regression coefficient on sustainable growth rate, with 0.299 level of significance and 1.047 t-values. This suggests that the higher the return on earning the faster the sustainable growth rate. However, the result is not significant.

Dividend payout ratio has negative significant regression coefficient on sustainable growth rate, with 0.000 level of significance and -5.393 t-values. This suggests that the higher the dividend payout ratio the faster the sustainable growth rate.

Table 2 : Regression Results of Hypothesis Testing 4

Coefficients ^a						
Model	Unstandardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error			Tolerance	VIF
1 (Constant)	31.256	2.787	11.216	.000		
Return on equity	.611	.075	8.186	.000	1.000	1.000

a. Dependent Variable: dividend payout ratio

Return on equity has positive significant regression coefficient on dividend payout ratio, with 0.000 level of significance and 8.186 t-values. This suggests that the higher return on equity the higher dividend payout ratio.

Table 3: Regression Results of of Hypothesis Testing 5

Coefficients ^a						
Model	Unstandardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error			Tolerance	VIF
1 (Constant)	6358.863	2476.318	2.568	.013		
Return on equity	159.501	66.311	2.405	.019	1.000	1.000

a. Dependent Variable: stock price

Return on equity has positive significant regression coefficient on stock price, with 0.019 level of significance

and 2.405 t-values. This suggests that the higher return on equity the higher the stock price.

For comparing our results to the other research findings, is explained as follows. In Brealey, Myers, Allen (2011), several researchers find that dividend increases do not predict increased earnings growth. However, Healy and Palepu, who focus on companies that paid a dividend for the first time, find that on average earnings jumped 43% in the year a dividend was paid. If managers thought that this was a temporary windfall, they might have been cautious about committing themselves to paying out cash. But it looks as if these managers had good reason to be confident about prospects, for earnings continued to rise in the following years (Healy and Palepu, 1988 ; Grullon, Michaely, and Swaminathan, 2002).

A higher dividend prompts a rise in the stock price, whereas a dividend cut results in a fall in price. For example, in the case of the dividend initiations studied by Healy and Palepu, the dividend announcement resulted in a 4% stock-price increase on average. Notice that shareholders do not get excited about the level of a company's dividend, they worry about the change, which they view as an important indicator of the sustainability of earnings.

According to Ofer and Siegel (1987), shareholders certainly appear to take comfort from an increase in dividends. When the increase is announced, analysts generally up their forecast of the current year's earnings.

Meanwhile, from the study of Dewenter and Warther (1988) concluded that in some other countries shareholders are less preoccupied with dividend changes. For example, in Japan there is a much closer relationship between corporations and major stockholders, and therefore information may be more easily shared with investors. Consequently, Japanese corporations are more prone to cut their dividends when there is a drop in earnings, but investors do not mark the stocks down as sharply as in the U.S.

Correlation Results

Table 4 : Pearson Correlation

Correlations					
		Stock price	Return on equity	Dividend payout ratio	Sustainable growth rate
Stock price	Pearson Correlation	1	.301*	.164	.173
	Sig. (2-tailed)		.019	.211	.186
Return on equity	Pearson Correlation	.301*	1	.732**	-.335**
	Sig. (2-tailed)	.019		.000	.009
Dividend payout ratio	Pearson Correlation	.164	.732**	1	-.618**
	Sig. (2-tailed)	.211	.000		.000
Sustainable growth rate	Pearson Correlation	.173	-.335**	-.618**	1

	Sig. (2-tailed)	.186	.009	.000	
*. Correlation is significant at the 0.05 level (2-tailed) ; [n=60]					
**. Correlation is significant at the 0.01 level (2-tailed).					

From table 4 Pearson Correlation, result shows that there is a negative and statistically significant correlation between sustainable growth rate and return on equity. The pearson correlation is -.0335 with the significance level of 0,009. This result implies that the higher sustainable growth rate the lower return on equity.

Table shows that there is a negative and statistically significant correlation between sustainable growth rate and dividend payout ratio. The pearson correlation is -.0618 with the significance level of 0,000. The result implies that the higher sustainable growth rate the lower dividend payout ratio.

Result shows that there is a positive and statistically significant correlation between stock price and return on equity. The pearson correlation is 0,301 with the significance level of 0,019. The result implies that the higher the stock return the higher the return on equity.

Result also shows that there is a positive and statistically significant correlation between return on equity and dividend payout ratio. The pearson correlation is 0,732 with the significance level of 0,000. The result implies that the higher return on equity the higher dividend payout ratio.

Dividend payout ratio and stock price have positive correlation as explained by "informational content" theory which stated that the information provided by the dividends of a firm with respect to future earnings, which causes owners to bid up or down the price of the firm's stock. It also explained by dividend relevance theory advanced by Gordon and Lintner, stated that there is a direct relationship between a firm's dividend policy and its market value. Clientele effect stated that the argument that a firm attracts shareholders whose preferences for the payment and stability of dividends correspond to the payment pattern and stability of the firm itself. Investors see current dividends as less risky than future dividends or capital gains. Meanwhile, according to the residual theories of dividend that dividend paid by a firm should be viewed as a residual, the amount left over after all acceptable investment opportunities have been undertaken.

R Square Analysis

In the case of a linear relationship between two variables, both the coefficient of determination and the sample correlation coefficient provide measures of the strength of the relationship. The coefficient of determination provides a measure between zero and one, whereas the sample correlation coefficient provides a measure between -1 and +1. Although the sample correlation coefficient is restricted to a linear relationship between two variables, the coefficient of determination can be used for nonlinear relationship and for relationship that have two or more independent variables. Thus, the coefficient of determination

provides a wider range of applicability (Anderson, Sweeney, Williams, 2008).

Table 5 : Model Summary of Hypotheses 1-3

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.685 ^a	.470	.441	4.026037	1.304
a. Predictors: (Constant), stock price, dividend payout ratio, return on equity					
b. Dependent Variable: sustainable growth rate					

R squared in the table with sustainable growth rate as dependent variable and stock price, dividend payout ratio, and return on equity as predictors, is 0.470. Adjusted R square 0.441. This means that 47% change in sustainable growth rate was explained by the stock price, dividend payout ratio, and return on equity while 53% is explained by another reason.

Table 6 : Model Summary of Hypothesis 4

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.732 ^a	.536	.528	13.762992	.721
a. Predictors: (Constant), return on equity					
b. Dependent Variable: dividend payout ratio					

R squared in the table with dividend payout ratio as dependent variable and return on equity as predictor, is 0.536. This means that 53.6% why dividend payout ratio increased was explained by return on equity. 46.4% is explained by another reason.

Table 7 : Model Summary of Hypothesis 5

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.301 ^a	.091	.075	1.222948E4	1.035
a. Predictors: (Constant), return on equity					
b. Dependent Variable: stock price					

R squared in the table with stock price as dependent variable and return on equity as predictor, is 0.091. This means that 9.1% why stock price increased was explained by return on equity. 90.9% is explained by another reason.

Analysis of Regression Assumptions

Multicollinearity Test

Tests carried out before analyzing the regression coefficients of variables. This assumption represents the ideal condition of reality (Van Horne, 1998). Tests are as follow. Multicollinearity of several sets of explanatory variables to test whether there is a linear relationship between the

population means of the response variable and the explanatory variables. The objective of the test is to analyze the correlation between independent variables. Tolerance values, VIF, and correlation matrix are indicators to test multicollinearity. Tolerance value and VIF are still good as each values of these tests are from 0 to 1 and below 10 (table 1, 2, and 3).

Autocorrelation and the Durbin-Watson Test

When autocorrelation is present, serious errors can be made in performing test of statistical significance based upon the assumed regression model. It is therefore important to be able to detect autocorrelation and take corrective action. The Durbin-Watson statistic can be used to detect autocorrelation.

If successive values of the residuals are close together (positive autocorrelation), the value of the durbin-watson test statistic will be small. If successive values of the residuals are far apart (negative autocorrelation), the value of the Durbin-Watson statistic will be large.

Table 5, 6, and 7. show the results of autocorrelation test. The predictor stock price, dividend payout ratio, and return on equity and dependent variable sustainable growth rate shows the value of Durbin-Watson 1,304. The predictor return on equity and dependent variable dividend payout ratio shows the value of Durbin-Watson 0,721. Finally, predictor return on equity and dependent variable stock price shows the value of Durbin-Watson 1.035.

Heteroscedasticity Test

Heteroscedasticity declare variable Y's equal variation in relation to the value of variable X's. Test of heteroscedasticity aims to interpret whether the regression model has a different residual variance from an observation to another observation. Graphic shows that the data are not experiencing heteroscedasticity (in appendix).

Normal distribution test

Finally, if there are two standard deviations from the mean, or some other property of non-normal, then this indicates that there is non-normal distribution assumption. In this research, the histogram shows the normally graphic pattern of distribution. Graphic normal P-P plots showed that the dots spread around the diagonal line, and its spread following the diagonal line [in appendix].

5. Conclusion

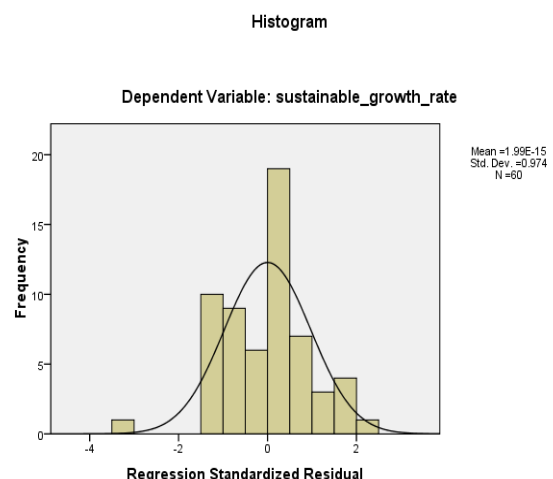
From the results of regression analysis by using 15 companies as sample from the Kehati Sustainable and Responsible Investment Index, we concluded that stock price has positive significant regression coefficient on sustainable growth rate, dividend payout ratio has negative significant regression coefficient on sustainable growth rate, return on equity has positive significant regression coefficient on dividend payout ratio and stock price. Finally, return on equity has positive regression coefficient on sustainable growth rate, however, the result is not significant.

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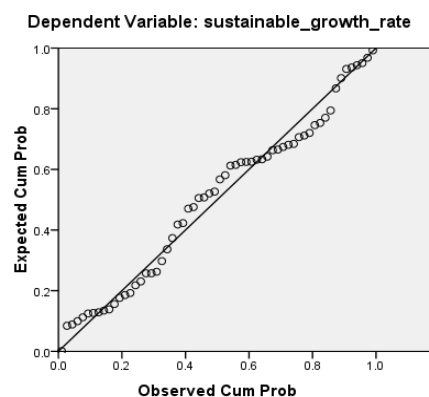
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Appendix

Figure of Equation 1



Normal P-P Plot of Regression Standardized Residual



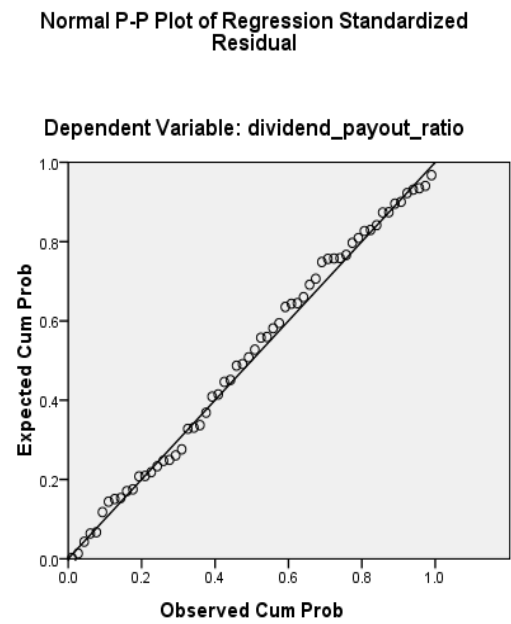
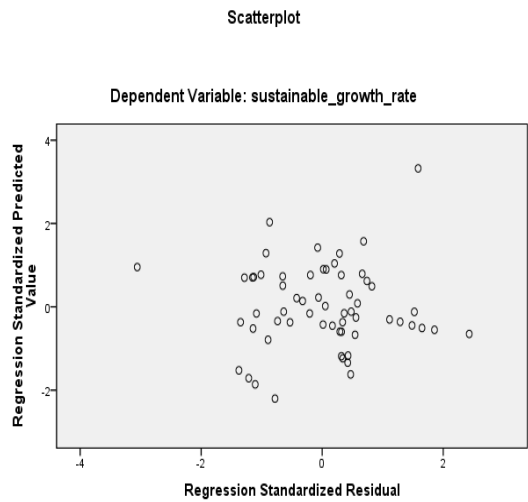


Figure of Equation 2

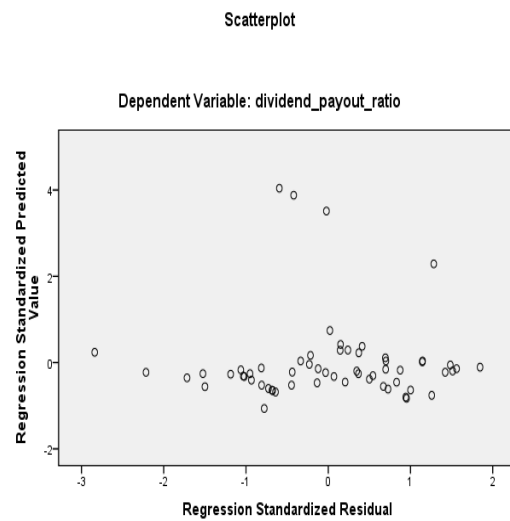
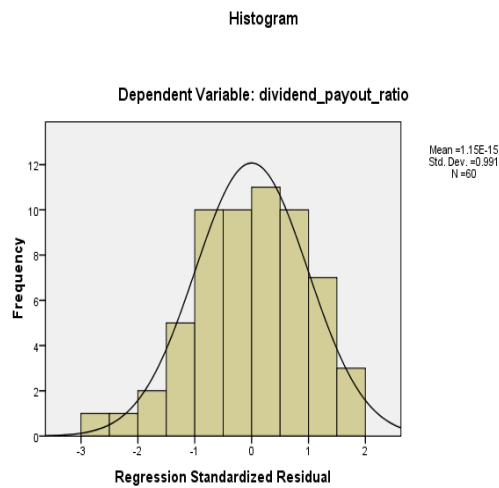
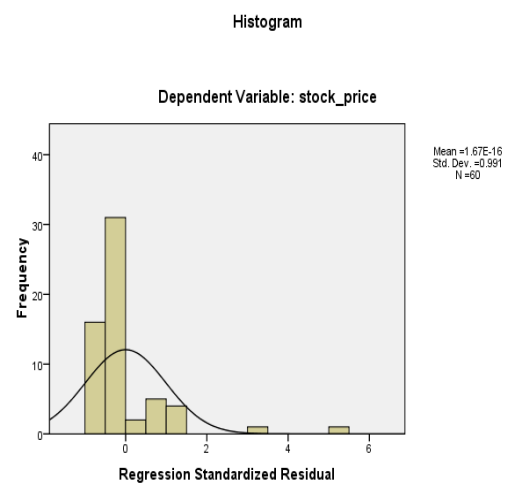
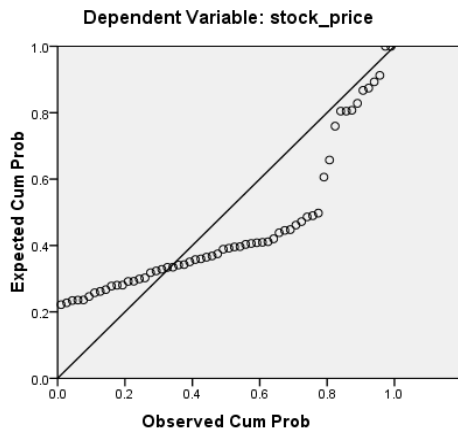


Figure of Equation 3



Normal P-P Plot of Regression Standardized Residual



Scatterplot

