EFFECT OF DEBT TO EQUITY RATIO AND RETURN ON EQUITY ON PRICE BOOK VALUE

Dedek Kurniawan Gultom
Yudi Siswadi
Faculty of Economics and Business
University of Muhammadiyah Sumatra Utara
Jl. Kapten Mukhtar Basri No. 3 Telp. (061) 6624567 Medan 20238
email: dedekkurniawan@umsu.ac.id

Abstract

This study aimed to investigate the effect of partial and simultaneously between Debt to Equity Ratio (DER) and Return On Equity (ROE) as independent variables to Price Book Value (PBV) as the dependent variable on the insurance company in Indonesia Stock Exchange. The research approach used in this study is associative approach. The data used in this research is secondary data such as financial statements, 8 companies for the last 5 years ie from 2013 to 2017 were entirely sampled. Data analysis techniques in this study using multiple linear regression analysis, the classical assumption test, t test, F-test, and the coefficient of determination were processed using SPSS for Windows version of the program as 22:00. Return On Equity (ROE) partially does not have significant influence to Price Book Value (PBV), while simultaneously Debt to Equity Ratio (DER) and Return On Equity (ROE) not significant to Price Book Value (PBV) in the insurance company in Bursa Securities Indonesia.

Keywords: Debt To Equity Ratio, Return On Equity and Price Book Value

PRELIMINARY

Prioritize development company needs funds to mengutamkan compliance with sources inside and outside the company. Every activity of the company, relating to financial transactions and policies will affect the company's assets, liabilities, capital, expense and revenue. Companies must conduct their activities accordingly to maintain the viability of life companies in the face of fierce competition, we need a handler and resource management that has the company efficiently and effectively.

These ratios are used to see how big the market appreciates the value of shares compared to the book value of the company. The higher the market rate the company had positive business prospects to come. Price Book Value (PBV) can also be used unutuk stock analysis whether the stock is said to be expensive or cheap. Price Book Value (PBV) is a value that can be used to compare whether a stock is more expensive or less expensive than the other stock.

The book value (book value) per share showed net assets (net assets) held by the shareholders by having one share. Because net assets is equal to the total acuity shareholders, then the book value per share is total equity divided by number of shares outstanding.

Debt to Equity Ratio (DER) has an influence on the price-book value (PBV) of the company. Magnitude Debt to Equity Ratio (DER) will be influenced by management's decision to commit funding from outside or not will affect the management decision to use the funds in operation. Because in each of its operations, a company needs funds to finance it. According Kamsir (2008: 157) Debt to Equity Ratio (DER) is a ratio that is
used to assess the debt with this ekuitas. Rasio sought by comparing the entire debt, including current debts with the rest of the equity. This ratio is useful to know the amount of funds provided the borrower (creditors) with the owner of the company. In other words, this ratio serves to megetahui every penny of their own capital to be used as collateral.

The higher this ratio, the better. That is the position of the owner of the company is getting stronger, and vice versa. According to Zulfikar (2016: 97) Price Book Value is the expense ratio and the equity value of the stock itself. While the person who senderung choose the method of analysis is called "value investors".

For companies that run well, generally this ratio reached above one, which indicates that the stock market value is greater than its book value. The greater the ratio the higher PBV companies rated by the relative dibandingkam investors with funds that have been invested in the company. Management guidelines always use tools to achieve its goals by using Return On Equity (ROE) and always tries to pass the efficiency of the costs incurred in the Debt to Equity Ratio (DER).

Insurance companies listed in Indonesia Stock Exchange is one of the companies engaged in the institutions that provide a variety of policy or contract of insurance to protect service users or customers from a wide range of uncertain risk of loss by paying the premiums regularly and a certain time period. Which has been successfully entered in the register of shares in the Indonesian Stock Exchange.

LITERATURE REVIEW

Price Book Value (PBV)

Generally Price Book Value (PBV) provides an estimate of the value of a company, if required to dilikuiditas, the book value is the value of assets of the companies listed in the financial statements. Shows what would be obtained by shareholders after the company sold all of its debt has been repaid. Price Book Value (PBV) has examined the company's financial position appropriately, Price Book Value (PBV) is very suitable for use in the company - a company engaged in financial services such as bank and insurance company. According to Santoso (2018: 260) Price Book Value (PBV) is a ratio that calculates the ratio between the company's stock price to its book value (book value). Price Book Value (PBV) is the value of an asset or group of assets is reduced by the amount of depreciation charged over the life of the asset use. The book value of an asset in a particular period may vary from one company to another company.

Price Book Value (PBV) is a ratio that measures the value of a given financial market to the management and organization of companies as a company that continues to grow. Factors affecting the size of Price Book Value (PBV), factors - these factors include Return On Equity (ROE), return on assets (ROA), earnings per share (EPS), dividend payout ratio (DPR) debt to equity ratio (DER ), current ratio (CR), size, growth, and beta stocks. According Maryati (2018) Price Book Value (PBV) is the result of a comparison between the stock price can be calculated by compare total common stock equity by the number of shares outstanding. By dividing the price per share to be obtained by the ratio nilia book value / market nuku.

The book value per share is the net asset value (net assets) owned by the owners by having one share.
Debt to Equity Ratio (DER)
Companies that take advantage of the relationship between the interested parties can be built through relationship capital structure functions that affect the value of the company. According to Hery (2016: 168) Debt to Equity Ratio (DER) is a ratio used to measure the proportion of debt to equity. This ratio is calculated as the quotient between total debt to capital. This ratio is useful to calculate the ratio between the amount of funding provided by creditors with the funds coming from the owner of the company. To conduct their operations, each company has a variety of needs, particularly with regard to funding for the company to run properly. According to Kashmir (2009: 114) Debt to Equity Ratio (DER) is a debt ratio used to measure how much the company's assets are financed by debt or how much the company's debt affects the management of assets.

The capital structure is the balance or ratio between foreign capital and the capital itself. Foreign capital in this case is long-term debt and short-term. While the various above equity and inclusion kepimilikan retained earnings of the company. The factors - factors that affect the capital structure is the interest rate, the stability of “earnings”, the composition of the assets, the risk level of assets, the significant amount of capital required, the state of capital markets, the nature and size of the company management.

Return On Equity (ROE)
According to Gerald (2017) Return On Equity (ROE) is a ratio showing how much capital contribution in creating a net profit. The greater the ratio of this market, the company will have the ability to earn a profit for the better. Return On Equity (ROE) is the ratio of net profit after tax measure with their own capital. Profitability ratio that measures a company's ability to generate profit from investments Sajam holders in the company. According to Hani (2014: 75) Return On Equity (ROE) is the ability of the equity (usually common stock) of the company to generate profits. And as factors that affect the Return On Equity (ROE), which is an advantage over the component sales (net profit margin). Akriva use efficiency (total asset turnover) as well as the use of leverage (debt ratio).

According Jufrizen (2016) Return On Equity (ROE) is a company's ability to generate profit after tax by using the company's own capital. This ratio is important for the stock pemengang, to determine the effectiveness and efficiency of its own capital pengelolahan do eleh the management company. Factors that determine the Return on Equity (ROE) is dependent upon the size of kierja kperusahaan itself. Good performance will give the Return On Equity (ROE) is good and vice versa. If the number of high net income earned while the total number of the company's own capital is low, the rate of return on equity (ROE) will be high.

METHOD
The research approach illustrates the kind or form of the underlying research study. The research approach used in this study is to use associative approach.

The population in this study is a company - Insurance company totaling 14 companies listed in Indonesia Stock Exchange (BEI) in 2013 s / d 2017. The sample used in this study was determined by using a purposive sampling using a sampling technique by considering the particular sample in order to obtain samples representatif in accordance with the criteria specified. The criteria for the sampling criteria in this study, as follows:
a. Companies that used in this study is a company in the insurance sector which have service users or clients listed on the Indonesia Stock Exchange in 2013-2017.
c. Companies whose financial statements listed in Indonesia Stock Exchange during the last 5 years ie in the year 2013 to 2017.

The data used in this study is kuantitati sourced from secondary data. Source data used are secondary data source that study data in the form of data from documents obtained from the internet by way of downloading the Indonesia Stock Exchange's official website ie http: //www.idx.co.id. Data analysis techniques in this research is using multiple linear regression and hypothesis testing.

RESULTS AND DISCUSSION

Result

To generate a good model, analysis regeresi provide multiple linear regeresi test before hypothesis test. In the event of irregularities in the testing of multiple linear regression following repairs need to be done first. Before performing multiple regression analysis, in order to obtain estimates of the unusual efesinsi then tested classic asumis. This test is intended to mendektesi deviation classical assumptions that must be met to use multiple regression are:

Classic assumption test

To determine the effect of Debt to Equity Ratio (DER) and Return On Equity (ROE) to Price Book Value (PVB) to the insurance company listed on the Indonesia Stock Exchange. assumption test, where the analysis used is the classical assumption (normality test, multicollinariaty, heteroscedasticity test and autocorrelation test).

Normality test

On normality test there are several methods that can be used to detect problems normality one of them is Kolmorogov- Smirnov test. This test is used to determine whether the sample comes Return On Equity (ROE) of the population with a particular distribution in this case is a normal distribution. Summary of normality test results can be seen in the following table.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>One-Sample Kolmogorov-Smirnov Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>40</td>
</tr>
<tr>
<td>Normal Parameters, b</td>
<td>mean</td>
</tr>
<tr>
<td></td>
<td>Std. deviation</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td>Absolute</td>
</tr>
<tr>
<td></td>
<td>positive</td>
</tr>
<tr>
<td></td>
<td>negative</td>
</tr>
<tr>
<td>Test Statistic</td>
<td>Asymp. Sig. (2-tailed)</td>
</tr>
<tr>
<td>a. Test distribution is Normal.</td>
<td></td>
</tr>
<tr>
<td>b. Calculated from data.</td>
<td></td>
</tr>
<tr>
<td>c. Significance Lilliefors Correction.</td>
<td></td>
</tr>
</tbody>
</table>
The above table shows the magnitude of the probability of the Kolmogorov-Smirnov test can be viewed Return On Equity (ROE) Asymp.Sig value that is equal to 0.587. Sig value is greater Return On Equity (ROE) significant level that we set is 0.05 ($\alpha = 5\%$) so that it can be concluded that the independent variable on the dependent variable distributed normally, after seeing the Kolmogorov-Smirnov test for normality of distribution also see in the picture below this.

**Multicollinearity test**

Multicollinearity test can be seen Return On Equity (ROE) Tolerance and VIF value. If the value is greater ToleranceReturn On Equity (ROE) of 0.1 and smaller VIFReturn On Equity (ROE) 10, it can be said does not happen Multicollinearity the processed data.

<table>
<thead>
<tr>
<th>Model</th>
<th>collinearity Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td></td>
<td>tolerance</td>
</tr>
<tr>
<td>LN_DER</td>
<td></td>
<td>, 961</td>
</tr>
<tr>
<td>LN_ROE</td>
<td></td>
<td>, 961</td>
</tr>
</tbody>
</table>

a. Dependent Variable: LN_PBV
(Source: SPSS pengelolahan 22, 2019)

The above table shows the test results multicolloniality. The test results produce value tolerance for Debt to Equity Ratio (DER) of 0, 961 The value is greater Return On Equity (ROE) of 0.1 while VIF obtained at 1,041smaller Return On Equity (ROE) 10. As for the test results variable Return On Equity (ROE) tolerance values obtained at 0, 961 The value is greater Return On Equity (ROE) of 0.1 while its VIF value of 1,041The smaller value Return On Equity (ROE) of 10. Based on these explanations, it can be concluded that the independent variables and the dependent variable in this study there was no trouble multicolloniality

**Heteroskedasticity test**

A good regression model should not happen heterocedasticity. Heterocedasticity detection can be achieved by a scatter plot provisions in determining heterocedasticity as follows. If there is no specific pattern, dots spread randomly rounded above and below the number 0 on the Y axis, it does not happen heterocedasticity.
Based on the output scatterplot above, it appears that the dots spread and does not form a specific pattern, so that it can be concluded that there was no trouble heterocedastity. It is determined in accordance with the basis for a decision in a scatterplot graph heteroscedasticity test with previously described.

**Autocorrelation test**

In the autocorrelation test, there are several methods that can be used. However, in this study researchers used a method Durbin Watson method widely used method to detect problems autokorekasi. That is to test whether the linear regression model was no correlation between bullies error in period t with bullies error in period t-1.

The above table shows the value of Durbin Watson statistic of 0.541. Value dL and dU, and with α = 5% at n = 45 and k = 2 respectively 1.429 and 1.6148. Durbin Watson count value is located in the smaller area Return On Equity (ROE) dL value which means there is positive autocorrelation. Thus, dimpulkan that there is a correlation between bullies mistake in that period and the prior period error.

**Hypothesis Testing**

**Partial test (t test)**

The above table shows the value of Durbin Watson statistic of 0.541. Value dL and dU, and with α = 5% at n = 45 and k = 2 respectively 1.429 and 1.6148. Durbin Watson count value is located in the smaller area Return On Equity (ROE) dL value which means there is positive autocorrelation. Thus, dimpulkan that there is a correlation between bullies mistake in that period and the prior period error.
Debt to Equity Ratio (X1) Against Price Book Value (Y)

Seen in the column coefficients model 1, variables X1 has a value that is 5.191 and that is greater than the value of t table (5.191 > 2.024) with a significantly smaller value Return On Equity (ROE) probability value (0.000 < 0.05), so it can be concluded that the variable Debt to Equity Ratio (X1) has a positive and significant influence to Price Book Value (Y).

Return On Equity (X2) to Price Book Value (Y)

Seen in the column coefficients model 1, variables X1 has a value that is -0.185 and that is less than the value of t table (-0.185 < 2.024) with a significantly greater value Return On Equity (ROE) probability value (0.854 > 0.05), so it can be concluded that the variable Return On Equity (X2) had no significant positive effect and not to Price Book Value (Y).

Simultaneous Test (Test F)

F-test was conducted to determine the effect of variable Debt to Equity Ratio (DER) and Return On Equity (ROE) to Price Book Value (PVB) together or simultaneously. Data processing was performed using SPSS version 20.0 for windows as follows:

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>11,385</td>
<td>2</td>
<td>5.692</td>
<td>13.841</td>
<td>0.000b</td>
</tr>
<tr>
<td>residual</td>
<td>15,217</td>
<td>37</td>
<td>411</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>26,602</td>
<td>39</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: LN_PBV
b. Predictors: (Constant), LN_ROE, LN_DER

F count compared to the value of F table with a significance level α = 5% and the degree of freedom numerator and degrees denominator = k = nk-1. So the numerator = 2 and the degree of the denominator = 40-2 = 38, then gained 3.24 F table .

Based on the above requirements then the influence of the variable Debt to Equity Ratio (DER) and Return On Equity (ROE) to Price Book Value (PVB) can be explained by the results of test analysis f obtained in the table indicates that the value of F < F table (13.841 > 3.24) and a significant and often aloof sphere which is worth 0.000 > 0.05 . This means that H0 and H1 were denied admission area. So the hypothesis "It is
believed that the Debt to Equity Ratio (DER) and Return On Equity (ROE), simultaneously significant effect on the level of Price Book Value (PVB) to the insurance company listed on the Indonesia Stock Exchange was rejected, thus simultaneously debt to Equity Ratio (DER) and Return on Equity (ROE) not significant effect on the level of Price Book Value (PVB) Insurance companies listed in Indonesia Stock Exchange.

The coefficient of determination ($R^2$)

The coefficient of determination is used to determine the influence of contributions Debt to Equity Ratio (DER) and Return On Equity (ROE) to Price Book Value (PVB).

<table>
<thead>
<tr>
<th>Table 6</th>
<th>Model Summaryb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>R</td>
</tr>
<tr>
<td>1</td>
<td>0.654a</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), LN_ROE, LN_DER  
b. Dependent Variable: LN_PBV

From the table above shows the determination value for the variable Debt to Equity Ratio (DER) and Return On Equity (ROE) to Price Book Value (PVB), how to see determination test is to look at the value of $R^2$ namely 0.428 or 42.8% free influence to influence the amount of bound, while the rest influenced by factors not examined in this research.

DISCUSSION

The discussion in this study was the effect of the findings of this study on the suitability of theories, opinions and previous research has noted previously seta patterns of behavior that must be done to overcome it. Here there are three parts that will be discussed in the influence of the study's findings that must turn able to answer every question that is in the formulation of the problem, as follows:

Effect of Debt to Equity Ratio on Price Book Value

Based on the above research on the effect of the Debt to Equity Ratio (DER) to Price Book Value (PVB) the insurance company listed on the Indonesia Stock Exchange 2013-2017 period. Stating that the value $t_{count}$ 5.191 and $t_{table}$ 2.024 or in other words $t_{count}$ > $t_{table}$ (5.191 > 2.024) with significant value. Thus $H_a$ is rejected and accepted. This means that the variable Debt to Equity Ratio (X1) has a positive and significant influence to Price Book Value (PVB) the insurance company listed on the Indonesia Stock Exchange 2013-2017 period.

This indicates that the Debt to Equity Ratio (DER) is an indicator that shows the company's financial strength. With regard Debt to Equity Ratio (DER) to assess how total loans obtained from the company. The results are consistent with previous research that has been done by Aminahuzzahr (2010), in penelitinya stated that the Debt to Equity Ratio (X1) has a positive and significant influence to Price Book Value (PVB).
Based on the results of research by the author and previous research has dikemukkan above that partially Debt to Equity Ratio (X1) has a positive and significant influence to Price Book Value (PBV).

**Effect of Return On Equity on Price Book Value**

Based on the result of the influence of Return On Equity (ROE) states that the value thitung -0.185 and tabel 2.024 or in other words t > t table (-0.185<2.024) with significant value. This means that it can be concluded that the variable Return On Equity (X2) has no effect and is not significant to Price Book Value (Y) on the insurance company listed on the Indonesia Stock Exchange 2013-2017 period.

Return On Equity (ROE) is a measure of the ability to pay immediately in net profit to be met by the company's equity to run the Return On Equity (ROE) is generated at the insurance company in Indonesia Stock Exchange Period 2013-2017 experienced fluktasi. This marks the company has not been efficient in generating Price Book Value (PBV).

The results are consistent with results of previous studies conducted by Amitnathuzzahra (2010) where Retun On Equity (ROE) has no effect and is not significant to Price Book Value (PBV). So it can be concluded that Return on equity (ROE) partially does not have significant influence and not to Price Book Value (PBV).

**Effect of Debt To Equity Ratio and Return On Equity on Price Book Value**

Based on the test results the simultaneous influence of Debt to Equity Ratio (DER) and Return On Equity (ROE) to Price Book Value (PBV) the insurance company listed on the Indonesia Stock Exchange 2013-2017 period, which menyatahkan that the value of F < F table (13,841 > 3.24) and a significant and often aloof sphere which is worth 0.000 > 0.05 ,. Thus the reception area H0 and H1 were rejected. This means that no significant effect together of all independent variables Debt to Equity Ratio (DER) and Return On Equity (ROE) on the dependent variable Price Book Value (PBV).

Price Book Value (PBV) shows the inability of the company to pay off the total debt on its book value, but from the data Debt to Equity Ratio (DER) at the insurance company in Indonesia Stock Exchange showed deterioration and peningkatanya Debt to Equity Ratio (DER). This means that the Debt to Equity Ratio (DER) affects Price Book Value (PBV). This is shown by the increasing value of the book is able to increase the Price Book Value (PBV) since the total debt decreased.

According Syamsudin (2013) Price Book Value (PBV) is a measurement of earnings (income) available to the owners of the company (both common shareholders and preferred shareholders) on the capital they invest in the company. This means that the higher the Price Book Value (PBV) or earn income in the better position of the owner of the insurance company in Indonesia Stock Exchange.

**Conclusion**

Based on the results of research and discussion that has been stated previously, it can be concluded from the study about the effect of Debt to Equity Ratio (DER) and Return On Equity (ROE) to Price Book Value (PBV) in the insurance company listed on the Indonesia Stock Exchange period 2013 -2017 is a partial research results prove that the Debt to Equity Ratio (DER) significantly affects the Price Book Value (PBV) the insurance company listed on the Indonesia Stock Exchange 2013-2017 period. Partial results of research prove that Return On Equity (ROE) did not significantly
influence the Price Book Value (PBV) the insurance company listed on the Indonesia Stock Exchange 2013-2017 period.

BIBLIOGRAPHY