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Influence of Liquidity, Profitability, and Solvency of Companies on Bond Ratings (Case Study: Companies Listed on the Indonesia Stock Exchange 2018-2020)

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Abstract

The purpose of this study was to examine the relationship between liquidity, profitability and solvency on bond ratings. This research focuses on companies in the Property, Real Estate, and Construction sectors listed on the Indonesia Stock Exchange for the 2018-2020 period and using the Credit Rating Agency as a bond rating agency. Bond rating data is taken from the official website of the Credit Rating Agency and financial reports from the official website of the Indonesia Stock Exchange. The test in this study uses descriptive statistical analysis to provide certainty that the regression equation obtained has accuracy. This study uses a hypothesis test to see the effect of liquidity, profitability, and solvency on bond ratings. Hypothesis testing uses the individual parameter significant test method and the simultaneous significance test. The test was carried out using the multiple linear regression method with panel data during the test period. The results of this study prove that profitability has a significant effect, while liquidity and solvency have no significant effect on bond ratings.

Keywords: Liquidity, Current Ratio, Profitability, Solvency, Bond Rating.

INTRODUCTION

Investors in making investment decisions are based on information from the company and parties outside the company. The company's internal parties will submit company performance reports in the form of company financial and non-financial reports. In addition, parties outside the company, in this case those who have authorization, will provide other information from the perspective of the stockholder, in this context the bond rating.

Bond rating, according to Australian Ratings (1994), states that credit rating companies provide a simple grading system to borrowers in the form of relative capacity. Company to pay interest and principal on time. Meanwhile, the Credit Rating Agency (1997) stated that in general the debt rating is an indicator of the possibility of timely payment of interest and principal in accordance with the agreed agreement. These institutions will provide important information for investors in owning bonds.

Bond is a letter of evidence that the bond holder investor provides debt loans to the issuer of the bond issuer. The characteristics of bonds are that they have a maturity period, principal value of debt, bond coupons, bond ratings, and can be traded. As an investment instrument, bonds offer the advantage that bond holders have certainty about when and how long the investment will return. This is very different when compared to investments in the form of equity where profits are obtained from dividends paid by companies whose amounts are uncertain and from the difference between the purchase price and the selling price of shares when the shares are sold (Eduardus, 2016).

Information about a bond must be well known by investors before investing in bonds. This was done because the bond rating is an indicator of the risk of default, this rating has a direct effect that can be measured from the bond interest rate and the company's cost of debt. In addition, most bonds are purchased by institutional investors rather than individuals, and many institutions are limited to investing only in investment-worthy securities (Brigham & Houston, 2009).

However, investors generally use financial statements to determine the performance of a company. Financial statements are the result of an accounting process that can be used as a tool to communicate financial data or activities of a company and parties with an interest in data or the effectiveness of the company (Munawir, 2007). The purpose of financial statements according to Hans (2016) is to provide information about the financial position, financial performance, and cash flows of entities that are useful for most users of financial statements in making economic decisions.

Financial reports can be an indicator for management in managing company finances. The form of financial management can be in the form of liquidity ratios, profitability ratios and solvency ratios. The liquidity ratio serves to show or measure the company's ability to meet maturing obligations (Kasmir, 2017). The profitability ratio measures the company's ability to generate profits in relation to the level of sales, assets, and own share capital (Susilowati & Sumarto, 2010). The solvency ratio is used to measure the ability of a company to meet its long-term obligations (Mamduh & Abdul, 2016).

Previous research, Manurung (2009), found that Return On Assets (ROA) had a significant positive effect on bond ratings. Meanwhile, Bram (2010) found that the higher the profitability as measured by ROA, the more likely the bond issuing company is grouped in the investment grade category.

Based on the background and previous research, this study will examine the company's financial information that best reflects the bond rating results. The research was developed by taking research objects in property, real estate, and construction sector companies listed on the Indonesia Stock Exchange and ranked by the Credit Rating Agency in a row in the 2018-2020 period.

LITERATURE REVIEW

Financial statements

According to Kasmir (2017), financial statements are reports that show the company's current financial condition or within a certain period. The purpose of financial statements that show the current condition of the company is the current condition. The current condition of the company is the company's financial condition on a certain date (for the balance sheet) and a certain period (for the income statement).

According to the Indonesian Accounting Association (2012), financial statements are a structured presentation of the financial position and financial performance of an entity. The purpose of financial statements is to provide information about an entity's financial position and cash flows that is useful to most users of financial statements in making economic decisions.

Liquidity Ratio

The liquidity ratio shows the company's ability to pay short-term financial debt on time. The increase in current assets causes an increase in net working capital thereby reducing the level of risk of financial difficulties technically (Gitman, 2006) in (Alwi, 2012). The liquidity ratio is used to describe how liquid a company is and the company's ability to settle short-term debt using current assets.

Profitability Ratio

The profitability ratio shows the company's ability to earn profits both in relation to sales, total assets and profits for own capital (Alwi, 2012). This ratio aims to measure or assess the company's ability to gain profits through various activities carried out by the company. Profitability is a factor that should receive important attention because to be able to carry on its life, a company must be in a profitable condition.

Solvency Ratio

Solvency Ratio is a ratio used to measure the extent to which company assets are financed with liabilities (Kasmir, 2017). The leverage ratio used as a reference is Total Debt to Equity (Total Debt to Equity Ratio). This ratio is used to assess debt with equity (Kasmir, 2017). Solvency has a big impact on companies and investors, because when financial leverage increases, the cost of equity will also increase. With an increase in the cost of equity, the company's burden of paying off debt will increase and for investors the increase in solvency will increase the risk of their investment (Weston & Copeland, 1995).

Bond Rating

According to IDX, Bonds are one of the securities listed on the Exchange in addition to other securities such as shares, sukuk, asset-backed securities and real estate investment funds. Bonds can be classified as debt securities in addition to Sukuk. Bonds can be explained as transferable medium-long term debt securities, which contain a promise from the issuing party to pay interest in the form of interest for a certain period and pay off the principal at a predetermined time to the buyer of the bond. Bonds can be issued by corporations or by the state. Bonds can be distinguished according to who the publisher is (Tandelilin, 2017). Government bonds are bonds issued by the government of the Republic of Indonesia. Corporate bonds are bonds issued by companies, both private and state companies.

The bond rating system has been developed by several banks and other financial consulting firms. Several descriptions of bond ratings (Cahyaningtias, 2008), include:

a. Standard & Poor's (1994), states that the Standard & Poor's debt rating of a company or municipal is an assessment of current assets on the fairness of the creditworthiness of the company that issued the bond by emphasizing on certain bonds.

b. The Credit Rating Agency (1997) stated that in general the debt rating is an indicator of the possibility of timely payment of interest and principal in accordance with the agreed agreement.
c. Moody's (1994), states the exclusive design of the rating for the purpose of achieving bond objectives that are in accordance with investment quality.
d. Australian Ratings (1994), states that corporate credit ratings provide a simple grading system to borrowers in the form of relative capacity. Company to pay interest and principal on time.

Hypothesis Development

A financial statement can be analyzed using financial ratios. Financial ratios are an expression of the relationship between financial statement numbers so as to produce more meaningful information. There are several ratios used to analyze financial statements including liquidity, leverage, and company growth. Investors who want to buy bonds must look at the company's financial condition. Bonds to be purchased are usually based on recommendations from rating agencies that have been trusted and tested.

Research conducted by Husnan (2015), shows a high level of liquidity will indicate the company's strong financial condition so that financially it will affect the prediction of bond ratings. Meanwhile, according to Brotman (1989) and Young (1998) in Adrian (2011) stated that the higher the level of profitability of the company, the lower the risk of default, the better the rating given to the company. Likewise, Partha & Yasa (2016) and Mohamed (2015), mention the greater the company's solvency ratio, the greater the risk of default which causes the low bond rating given.

Based on the development of the research framework, the following is the formulation of the hypothesis:

a. H1: Liquidity affects bond ratings in the property, real estate, and construction sectors of property, real estate, and construction companies listed on the Indonesia Stock Exchange and ranked by the Credit Rating Agency in a row in the 2018-2020 period.
b. H2: Profitability affects bond ratings in the property, real estate, and construction sectors of property, real estate, and construction companies listed on the Indonesia Stock Exchange and ranked by the Credit Rating Agency in a row in the 2018-2020 period.
c. H3: Solvency affects bond ratings in the property, real estate, and construction sectors of property, real estate, and construction sector companies listed on the Indonesia Stock Exchange and ranked by the Credit Rating Agency in a row in the 2018-2020 period.

RESEARCH METHODS

This research focuses on companies in the Property, Real Estate, and Construction sectors listed on the Indonesia Stock Exchange for the 2018-2020 period and using the Credit Rating Agency as a bond rating agency. The author takes bond rating data from the official website of the Credit Rating Agency and financial reports from the official website of the Indonesia

Stock Exchange. The test in this study uses descriptive statistical analysis to provide certainty that the regression equation obtained has accuracy in estimation, is unbiased and consistent. This study also uses hypothesis testing to see the effect of liquidity, profitability, and solvency on bond ratings. Testing of the hypotheses in this study used the individual parameter significant test method (t statistical test) and the simultaneous significance test (F statistical test).

The population in this study are companies in the Property, Real Estate, and Construction sectors listed on the Indonesia Stock Exchange that issue bonds and bond ratings are issued by the Credit Rating Agency. The observation period is 2018-2020.

Table 1 Sample List

No	Issuer Code	Issuer Name	Registered Date
1	DILD	Intiland Development	4 September 1991
2	MDLN	Modernland Realty	18 Januari 1993
3	BSDE	Bumi Serpong Damai	6 Juni 2008
4	ADHI	Adhi Karya	18 Maret 2004
5	PTPP	Pembangunan Perumahan	9 Februari 2010
6	SSIA	Surya Semesta Internusa	27 Maret 1997
7	PPRO	PP Properti	19 Mei 2015
8	SMRA	Summarecon Agung	7 Mei 1990
9	WSKT	Waskita Karya	19 Desember 2017

To test the hypothesis of this study using multiple linear regression method, as follows:

Bond Ratings = 9,993 + β_1CR + β_1ROA + β_1DER + ε

Information:

CR : Current Ratio
ROA : Return On Asset
DER : Debt to Equity Ratio
ε : error

RESULTS AND DISCUSSION

Research Result

Multiple Regression Analysis

The results of the calculation of multiple linear regression analysis are presented in the following table:

Table 2 Multiple Linear Regression Analysis

Coefficients[a]

Model	Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1 (Constant)	9,993	0,939		10,640	0,000
Current Ratio (X1)	0,008	0,005	0,285	1,622	0,118
ROA (X2)	0,344	0,124	0,493	2,789	0,010
DER (X3)	-0,004	0,004	-0,137	-0,895	0,380

By looking at the table above, the multiple linear regression equation in this study is as follows:

Bond Ratings = 9,993 + 0,008 CR + 0,334 ROA -0,004 DER

Based on the function above, it can be explained as follows.

a. The multiple linear regression equation above is known to have a constant of 9.993 with a positive sign. So the magnitude of the constant indicates that if the independent variables (Current Ratio, ROA, and DER) are assumed to be constant, then the dependent variable, namely ROA, will increase by 9.993%.

b. The Current Ratio has a positive regression coefficient of 0.008 which means that if there is an increase in the Current Ratio variable by 1%, there will be an increase in the Bond Rating of 0.008% and vice versa if the Bond Rating has decreased by 1%, the Bond Rating is predicted to decrease by 0.008%.

c. ROA has a positive regression coefficient of 0.344 which means that if there is an increase in the ROA variable by 1%, there will be an increase in Bond Rating of 0.344% and vice versa if ROA decreases by 1%, the Bond Rating is predicted to decrease by 0.344%.

d. DER has a negative regression coefficient of -0.004 which means that if there is an increase in the DER variable by 1%, there will be a decrease in Bond Rating by 0.004 and vice versa if DER decreases by 1%, the Bond Rating is predicted to increase by 0.004%.

Goodness of Fit

The value of the determinant coefficient (R2 or R-Square) from the Fit Test model test is to find out how far the model's ability to apply changes in the variation of the independent variable to the dependent variable. The results of the coefficient of determination test (R2) are shown in table 4:

Tabel 4
Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,684[a]	0,468	0,399	1,955

The coefficient of determination (Adusted R Square) is 39.9%. This implies that the 39.9% change in the Bond Rating can be explained by the variables Current Ratio, ROA, and DER. The remaining 60.1% was explained by other factors not explained in this study.

Hypothesis Testing

To see the effect of liquidity, profitability, and solvency partially on bond ratings, it can be done by using the t statistic test. Based on the results of data processing, the results obtained as shown in Table 4 below:

Table 3 Partial Test (t Test)
Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
1 (Constant)	9,993	0,939		10,640	0,000

Current Ratio (X1)	0,008	0,005	0,285	1,622	0,118
ROA (X2)	0,344	0,124	0,493	2,789	0,010
DER (X3)	-0,004	0,004	-0,137	-0,895	0,380

Based on the table above, the results of multiple regression can analyze the effect of each variable Current Ratio, ROA and DER on Bond Ratings can be seen from the direction of the sign and the level of significance. The variables Current Ratio, ROA and DER have a positive direction. And of these three variables, only the ROA variable is significant to Bond Rating. Because the significant value is less than 0.05 while the Current Ratio and DER variables have no significant effect on Bond Ratings because the significant value is greater than 0.05.

Discussion

Effect of Liquidity on Bond Rating

The results showed that the company's growth with the Current Ratio (CR) proxy had an effect on bond ratings. When viewed from the results of hypothesis testing, a conclusion can be drawn that the company's growth variable has a regression coefficient value of CR has a positive regression coefficient of 0.008% which means that if there is an increase in the CR variable of 1%, there will be an increase in bond rating of 0.008% and vice versa if CR has decreased by 1%, so the bond rating is predicted to decrease by 0.008%. The company's growth coefficient obtained is positive, meaning that there is a positive relationship between liquidity and bond ratings, i.e. the higher the liquidity, the bond ratings will increase and vice versa. This shows that a high level of liquidity will indicate the company's strong financial condition so that financially it will affect the prediction of bond ratings. This is in line with the theory which states that the higher the liquidity, the higher the rating of the company (Burton et al, 1998). The results of this study are in line with research (Kustyaningrum, Elva, & Anggita, 2016) which shows the results that liquidity with the current ratio (CR) proxy has an effect on bond ratings.

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The Effect of Profitability on Bond Ratings

The results showed that the growth of the company with the Return on Assets (ROA) proxy had an effect on bond ratings. When viewed from the results of hypothesis testing, it can be concluded that ROA has a positive regression coefficient of 0.344 which means that if there is an increase in the ROA variable by 1%, there will be an increase in the bond rating of 0.344% and vice versa if the ROA has decreased by 1%, the rating will increase by 1%. bond is predicted to decrease by 0.344%. The coefficient of company growth obtained is positive, meaning that there is a positive relationship between profitability and bond ratings, namely the higher the profitability, the bond ratings will increase and vice versa. The profitability ratio measures the company's ability to generate profits in relation to the level of sales, assets, and own share capital. This ratio is represented by Return on Assets (ROA). The profits obtained by the company indicate that the issuer's financial condition is good. A high level of profitability can indicate the company's ability to go concern and pay off obligations.

The Influence of Solvency on Bond Rating

The results showed that the company's growth with the proxy Debt to Equity Ratio (DER) had an effect on bond ratings. Where based on the results of the hypothesis test, it can be concluded that DER has a negative regression coefficient of -0.004 which means that if there is an increase in the DER variable by 1%, there will be a decrease in the bond rating of 0.004 and vice versa if DER has decreased by 1%, the bond rating is predicted to decrease. increased by 0.004%. So this is in accordance with the prevailing theory where the lower the ratio shown, the higher the bond level of the company. Solvency as measured using the Dept to Equity Ratio affects the bond ratings of property, real estate and construction companies listed on the Indonesia Stock Exchange in the 2018-2020 period. This ratio is used to determine the relationship between long-term debt and the amount of own capital that has been provided by the owner of the company, with the aim of knowing how much funds are provided by creditors and company owners. The higher the ratio, the smaller the equity compared to the debt. Where the company should have a policy where the debt owned by the company should not be greater than the capital it has. However, the lower this ratio is shown, the smaller the debt owned by the 74 companies and the safer it is. Then the lower the ratio shown, the higher the bond level of the company.

Effect of Liquidity, Profitability and Solvency on Bond Ratings

Liquidity has a significant effect on profitability and shows a positive relationship between liquidity and profitability, meaning that if the company's ability to generate profits increases, the company's ability to pay short-term debt will increase and will increase the bond level of the company. Solvency to profitability, this is proven. This study proves that solvency has a significant effect and there is a positive relationship between solvency and profitability, meaning that if the company's ability to generate profits increases, its ability to meet long-term debt will also increase and the company's bond level will also increase. Liquidity and solvency have a significant effect on profitability and there is a positive relationship between liquidity and solvency on profitability, meaning that if the company's ability to generate profits increases, the company's ability to pay all its debts will increase. Both the ability to pay short-term debt and the ability to pay off long-term debt and if that happens, the company's bond level will rise. The high and low numbers of the ratio of liquidity, profitability and solvency provide information to investors about whether or not a bond is eligible to be selected as a security in investment activities because it is influenced by the profitability and liquidity of the company. These three financial ratios provide an assessment of a company's performance. Investors before investing in bond securities need to look at the bond rating because the rating describes the credibility or whether or not a company is credible. This means that the company with a high bond rating can be trusted or the bonds issued are worth buying.

CONCLUSION AND RECOMMENDATIONS

Conclusion

Based on the results of research on the Effect of Liquidity, Profitability, and Solvency of Companies on Bond Ratings in Companies Listed on the Indonesia Stock Exchange in 2018-2020, at the end of this study the following conclusions can be drawn:

a. Liquidity measured using the Current Ratio (CR) affects the stock prices of property, real estate and construction companies listed on the Indonesia Stock Exchange in the 2018-2020 period. The current ratio itself is the simplest way of calculating the liquidity ratio compared to other methods, and is intended to determine the level of the company's ability to meet its short-term obligations with current assets or current assets.
b. Profitability as measured by Return On Assets affects the bond ratings of property, real estate and construction companies listed on the Indonesia Stock Exchange in the 2018-2020 period. This is because the higher the Return On Assets (ROA), the higher the net profit generated from each fund embedded in the company's total assets. In addition, by using Return On Assets (ROA) investors can assess whether the company has been efficient in using assets in operating activities to generate profits (Profitability).
c. Solvency as measured using the Dept to Equity Ratio affects the bond ratings of property, real estate and construction companies listed on the Indonesia Stock Exchange in the 2018-2020 period. The higher the ratio, the smaller the equity compared to the debt.

Recommendations

Based on the results of the study and the limitations of the study. So the suggestions that will be given by researchers, among others:

a. Bond issuing companies are advised to improve the company's financial performance in order to attract the attention of investors. Companies can pay attention to financial ratios, especially Liquidity and Profitability.
b. Investors should first analyze the company's performance, especially by paying attention to Liquidity and Profitability. Especially the value of CR and ROA in the financial statements as an ingredient in decision making.
c. For further researchers, it is recommended to add variables in it such as adding Leverage, Growth and extending the research period so that a better picture of the property company value will be obtained.

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