Effects of Leverage Operating Cash Flow and Profitability on Bond Rating

Ruth Ryanti Pardosi & Triyani Budyastuti

Mercu Buana University, Jakarta, Indonesia

Abstract: This research was conducted to study the probable effects of leverage, operating cash flow, and profitability on bond ratings at manufacturing companies listed on the Indonesia Stock Exchange (IDX) and Pefindo. Samples investigated in this study were 10 manufacturing companies during the year 2014 - 2019. The data analysis technique used was logistic regression analysis using SPSS 20 combined with hypothesis testing using the Wald test (partial test). The summary model shows a value of 0.149 or 14.9%, which means that the contribution of variable leverage, operating cash flow and profitability to the bond rating is 14.9%. The remaining 85.1% is explained by other factors not under investigation by this study. The analysis shows that Leverage has an effect on bond ratings, that Operating cash flow has no effect on the bond rating, and that Profitability has no effect on bond ratings. Companies should pay more attention on increasing the company's leverage value so that the company may get preferable bond rating in the investment-grade category. It seems that investors are more interested in investing in bonds in companies categorized as investment-grade.

Keywords: bond-rating, leverage, operating cash flow, profitability

1. Introduction

Among factors considered important in running a business is how to gain the possible sources of financing. For that purpose, companies usually issue bonds. Bonds are transferable medium-term debt securities, containing a promise from the issuing party to pay interest in a certain period of time and pay off the principal debt at a predetermined time to the buyer.

As a product of securities, bonds are listed on the Exchange Bonds together with other securities such as stocks, sukuk, asset backed securities and real estate investment funds. They can be classified as debt securities in addition to Sukuk which are issued by the Corporation or the State (Indonesia Stock Exchange, www.idx.co.id, 28 September 2019).

According to Azis, Mintarti & Nadir (2015; 100), fixed income debt securities are those securities that bind the issuer to pay a fixed amount of interest for a certain period of time and return principal amount at suggested tenure. Bonds are basically debt instruments for loans received by bond issuing companies from the investor community. Standing between them is a bond rating agency that works as an independent institution that provides risk scale rating information, which is necessary to apprise investors the security of a bond at advance.

Phenomena of downgrading bonds often occur in Indonesia. One of them is a case afflicted upon PT. Tiga Pilar Sejahtera Food, Tbk. What causes a downgrade to the bonds is astronomical increase in the prices of commodities sold from year to year, and also the company's inability to manage extra operating expenses to increase other incomes. The downgrade occurs each of the year 2014 to 2019, from Rank A to D.

On the other hand, phenomena of increasing bond ratings in Indonesia are also widely found. One of which is what transpires on PT. Mayora Indah, Tbk. in 2019. It posed an increase in sales with AA Bonds of a stable rating perspective. The rating upgrade is due to BSDE having a very strong ability to meet its relatively long-term financial commitments by obtaining a net profit of 56.48%. It seems that the rise and fall of bond ratings are influenced by the company's financial performance.
2. Literature

**Agency Theory**

Signal theory is one of the most important theories in understanding financial management. In general, the signal is interpreted as such by the company to let investors give a look (Fauziah (2017; 11). These signals can take many forms; some are easily observed and the others require more in-depth study. Also, they can be in the form of positive signals or otherwise.

**Bond Rating**

Based on the regulation of the Financial Services Authority Number 51 / POJK.04 / 2015, a bond rating is an assessment on the ability of a party to fulfill payment obligations on a timely basis to the shareholders as a commitment to their investment that profits (www.ojk.go.id).

**Leverage**

The leverage measures how much ratio a company is financed with debt. Debt that is too high will endanger the company since the company may fall into the extreme leverage category, trapped in a high level of debt and failing to handle the burden (Fahmi (2014).

**Operating Cash Flow**

Operation is the main revenue-producing activities of the company, while cash flows come from cash receipts from selling goods or providing services. Other than that, it can receive from royalties, fees, commissions, and other incomes (Toto, 2019; 73).

**Profitability**

Profitability is a ratio used to measure a company's ability to generate profits from its normal business activities. Basically, it gauges the level of management effectiveness through company operations (Hery, 2017; 192).

3. Framework of Thought and Hypothesis

**Effect of leverage on bond ratings**

The leverage ratio is used to determine the company's ability to pay off all its debts. In other words, this ratio is necessary to find out how a company funds its business activities, or whether debt or equity is more put into use in its system.

H1: Leverage affects the bond rating

**Effect of operating cash flows on bond rating**

Operating cash flow indicators can be used in rating bonds (Wendy and Rosita Naomi Sianturi, 2017). Operating cash flow is among the references used by investors for choosing particular bonds, because it describes by and large company's ability to generate cash from its operating activities. So, the higher the operating cash flow, the higher the rating the company will receive. That way, when the operating cash flow is low, the rating that the company receives is no different. Fail to pay obligations or bond interest in the future is surely at risk.

H2: Operating cash flow affects the bond rating
Effect of Profitability on bond rating

In Dinik et. al (2016), it was said that this ratio measures the effectiveness of management as a whole. It aimed at the level of the level of profits obtained in relation to sales and investment. The better the profitability ratio, the better it describes the company's high profitability (Fahmi, 2013: 135).

H3: Profitability affects the bond rating

Figure 1: Framework

4. Research Methods

Research Design

The research design used in research is a causal correlation research method. According to Sugiyono (2017) a causal relationship is a relationship that is causal in nature. This causal analysis explains how a variable affects changes in other variables. This analysis illustrates how the independent variables (Effect of Leverage, Operating Cash Flow, and Profitability) can affect the dependent variable, namely Bond Rating.

Table 1. Operational Variables

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Formula</th>
<th>Scale of Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dependent: Bond Rating</td>
<td>Score 1 for the bond that is rated high and 0 for bonds that are ranked low</td>
<td>Nominal</td>
</tr>
<tr>
<td>2</td>
<td>Independent: Leverage</td>
<td>Debt to Equity Ratio = ( \frac{\text{Total Liabiliti}}{\text{Total Ekuitas}} )</td>
<td>Ratio</td>
</tr>
<tr>
<td></td>
<td>Operating Cash Flow</td>
<td>( \text{Rasio AKO} = \frac{\text{Araus Kas Operasi} ; t - 1}{\text{Total Assets} ; t - 1} )</td>
<td>Ratio</td>
</tr>
<tr>
<td></td>
<td>Profitability</td>
<td>( \text{ROA} = \frac{\text{Laba bersih setelah pajak}}{\text{Total Aktiva}} )</td>
<td>Ratio</td>
</tr>
</tbody>
</table>

Analysis Method

This research uses SPSS 20 analytical tools. The analytical test conducted is descriptive test, and logistic regression test. (Ghozali, 2016).
\[ \ln \frac{TL}{1-TL} = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \]

Information:
\[
\ln \frac{TL}{1-TL} : \text{Bond Rating dummy variable.} \\
\alpha : \text{Constant Value} \\
\beta_1, \beta_2, \beta_3 : \text{Regression coefficient} \\
X_1 : \text{Leverage (DER)} \\
X_2 : \text{Operating Cash Flow (AKO)} \\
X_3 : \text{Profitability (ROA)} \\
e : \text{Error}
\]

5. Result and Discussion

Results

Table 2 Descriptive Statistics Result

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>RANGKING</td>
</tr>
<tr>
<td>DER</td>
</tr>
<tr>
<td>AKO</td>
</tr>
<tr>
<td>ROA</td>
</tr>
</tbody>
</table>

Source: SPSS data processing 20

1. The amount of data used in this study was 60 data samples taken from the published financial reports for the period 2014 to 2019. Having an average of 0.4500 can be interpreted that 45% of the total sample of this study indicates that manufacturing companies have low investment bond ratings. For better or worse, the company consistently issues bond ratings every year. The standard deviation value is 0.50169, which means that it shows a value that is greater than the average value, which means that the difference between the data looks high.

2. The Debt to Equity Ratio (DER) has a low (minimum) value of -2.12. The coefficient is negative, so it has a negative effect on company debt, meaning that DER has increased, so at that time the company’s debt will decrease. Or in other words, for each additional unit, the company’s debt will decrease by 2.12 units.

3. Operating cash flow data obtained an average of 0.0675 with the lowest data of -0.12, namely in the 2019 period. The standard deviation value is greater than the average value indicating that the operating cash flow on the bond rating is quite heterogeneous because the standard deviation is higher than the average rating.

4. Descriptive test results in table 4.1 the minimum value of profitability (return on assets) of -6.80. The average (mean) value on Return On Assets (ROA) is 6.4247 and the standard deviation is 3.99196. The average value (mean) shows a number that is smaller than the standard deviation value, it can be concluded that the Return On Asset (ROA) variable has a poor data distribution.
Logistic Regression Test

Based on table 4.7 above, the partial test results (Wald test) can be seen that the X1 leverage value (Der) is 0.015 with a significant 5% (0.05) then H0 is accepted. This means that leverage (DER) has a positive effect on bond ratings. The value of X2 operating cash flow (AKO) is -2.340 with a significant value of 5% (0.05), then H0 is rejected. This means that operating cash flow has a negative effect on the bond rating. The X3 value of profitability (ROA) is -0.029 with a significant value of 5% (0.05), then H0 is rejected. This means that profitability has a negative effect on bond ratings.

Analysis model

\[ KW = -0.667 + 0.015 \text{DER} - 2.340 \text{AKO} - 0.029 \text{ROA} + e \]

The effect of each variable leverage (DER), operating cash flow (AKO), and profitability (ROA) on the bond rating can be seen from the wald value and p-value.

Discussion

Effect of leverage on bond ratings

Leverage shows the proportion of using debt to finance the investment which is proxied by Debt to Equity Ratio (DER). The sizeable amount of debt compared to the amount of equity can increase the company's risk related to financial difficulties. However, the results of the study show that the leverage affects bond ratings since not all companies are in the same position to experience defaults. Companies which are able to manage funds properly will be able to generate profits, for example those using the funds to expand and develop new products, moreover invest and open new factories so that bigger profit may be earned to pay their obligations. The results of this study are in line with the research conducted by Desak Putu Opri Sani Saputri and Ida Bagus Anom Purbawangsa (2016) which shows that the leverage effects the bond ratings. A higher leverage ratio also assumes a higher debt proportion owned by the company. Moreover, it may demonstrate the company's assets so great that it can run its business smoothly.

Effect of operating cash flow on bond ratings

The results of testing operating cash flow variables which were calculated based on cash flow from operating activities compared to total assets show operating cash flow has no effect on the bond rating of manufacturing companies. This research is in line with the research of Wendy and Rosita Naomi Sianturi (2017) that also shows that operating cash flow has a negative effect on bond ratings.
Effect of profitability on bond ratings

The results of the logistic regression analysis in table 4.7 show the profitability variable (ROA) on the bond rating of manufacturing companies. Return on assets shows the effectiveness of the company in using its assets to generate net profit after tax. The results of this study are in line with research conducted by Hanna Mutia Narandika, Fauji Sanusi, Ika Utami W (2016) and Rizna Novtaviani Hening Widi Oetomo (2019) showing that profitability has a negative effect on bond ratings.

Conclusion

1. The results of the Leverage analysis, which is proxied by the Debt to Equity Ratio (DER), show that it has effect on bond ratings in manufacturing companies. These results make it clear that the leverage ratio (DER) reflects the company's ability to meet long-term obligations, with the hope that if the company is able to meet all of its debts, the bond rating will raise its bond rating. This may function in such a way that it gets the trust of the financing party regarding its performance and ability to manage loans.

2. The results of the analysis of Operating Cash Flow (AKO) show that it has no effect on bond ratings in manufacturing companies. These results make it clear that the AKO level does not affect the Bond Rating since cash flow from operating activities is obtained primarily from the entity's main revenue-producing activities. On the other hand, the ricocheting highs and lows in the profits earned from operating cash flows which occur at regular basis may determine companies' performance in the eyes of investors. This way their interest in the company's shares may decrease.

3. The analysis results show that profitability which is proxied by return on assets (ROA) has no effect on bond rating in manufacturing companies. In the use of profit, it is not used in funding cash flows or short-term debt but to pay dividends whose nominal value is greater so that profitability does not affect the bond rating.

Suggestions

1. For companies listed on the Indonesia Stock Exchange (IDX) and Pefindo that issue bonds should be consistent in paying off short or long term debt. They need to improve their performance and begin paying attention to their own financial conditions. Companies with low debt levels will benefit the bond rating which appeals to the attention of investors.

2. For investors, this research is expected to help measure both benefits and risks using the method of bond rating in investing. Those who want to invest in manufacturing companies must pay attention to variables that influence bond ratings or leverage. This bond rating describes mercilessly the performance of the company concerned.

3. Subsequent studies are hoped to consider a wider sample of variables in both financial and non-financial data and to add additional tenure beyond this study to benefit better.

References


32. http://www.idx.co.id

33. www.idnfinansial.co.id

34. http://www.pefindo.com

35. http://www.ojk.go.id