

The Effect of Net Profit Margin and Debt to Asset Ratio on Financial Distress (Study on Property, Real Estate and Building Construction Companies Listed on Indonesia Stock Exchange (IDX) Period 2015 – 2019)

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Abstract

Financial distress is a condition of a company's inability to pay its financial obligations at maturity which causes bankruptcy. The purpose of this study is to have an effect on Net Profit Margin and Debt to Asset Ratio on financial distress in property, real estate and building construction companies listed on the Indonesia Stock Exchange in 2015 - 2019. The type of research used is correlation. The data taken for this research is secondary data. The research method used in this research is quantitative research methods. The population of this research is property, real estate, and building construction companies listed on the Indonesia Stock Exchange in 2015 - 2019 which are planned for 94 companies. The samples used in this study were 77 samples. The results of this study indicate that the Net Profit Margin and Debt to Asset Ratio have an effect on Financial Distress.

Keywords: Net Profit Margin; Debt to Assets Ratio; Financial Distress.

INTRODUCTION

The real estate business is a business known for its volatile characteristics, intense competition. The increase in property prices is due to the increasing price of land, the supply of land is fixed while the demand will always increase as the population increases as well as the increasing human need for housing, offices, shopping centers, theme parks, and others. It is appropriate that if the development company benefits greatly from the increase in the price of the property, and with the profit gained then the development company can improve its financial performance to raise the share price. Increasing activity in the property industry can be a clue to the start of improving or resurgent economic activity.

Property businesses, especially housing, are being tested since the COVID pandemic destroyed all sectors of life. The saying goes that strong he's the one who survives the more realistic. Large and well-reputable property companies such as Ciputra Group, Sinar Mas Land, and Summarecon Agung, according to Coldwell Banker Commercial Associate Director Dani Indra Bharata, are some examples of developers surviving because of successful sales in the midst of this pandemic situation (www.ekonomi.bisnis.com).

But many property developers are also threatened with collapse due to the slow realization of credit restructuring programs, this is due to the strict requirements provided by banks, making it difficult for developers to benefit from the restructuring program because the company has collapsed and the restructuring process of the bank has just run (www.liputan6.com). NH

Korindo Securities analyst Ajeng Kartika Hapsari expects the property sector's performance this year to be not much different from the previous year. In fact, he assesses his condition will be much more difficult. Besides, Bank Indonesia's decision to maintain its benchmark interest rate of 4.5% some time ago also resulted in a decrease in consumer interest. With the effect of the policy to work from home and PSBB, this also suppresses the performance of the property, especially on the rental of tenants in shopping centers and offices (www.rumah.com). CEO of Indonesia Property Watch (IPW) Advisory Group Ali Traghanda said that so far the property industry has fallen 60 percent compared to 2019. Sales slumped sharply following also limited activity. Last year the property sector grew 10.9 percent compared to 2018. while for this year, it is down at least 60 percent (www.ekonomi.bisnis.com).

From 2012 to 2019, there have been quite some companies that have been unable to continue their operations, in other words. Here is a list of companies included in the delisting list by the Indonesia Stock Exchange (IDX):

Table 1. List of IDX Delisting Companies 2012 – 2019

No.	Code	Listing Date (IPO)	Delisting Date (Delisting)
1	NAGA	09-Jul-2013	29-Ags-2019
2	SIAP	17-Okt-2008	17-Jun-2019
3	ATPK	17-Apr-2002	30-Sep-2019
4	BBNP	10-Jan-2001	02-Mei-2019
5	GMCW	14-Feb-1995	13-Ags-2019
6	TMPI	26-Jan-1995	11-Nov-2019
7	DAJK	14-Mei-2014	18-Mei-2018
8	TRUB	16-Okt-2006	12-Sep-2018
9	JPRS	04-Ags-1989	08-Okt-2018
10	SQBB	29-Mar-1983	21-Mar-2018
11	CTRP	07-Nop-2007	19-Jan-2017
12	CTRS	15-Jan-1999	19-Jan-2017
13	SOBI	03-Agu-1992	03-Jul-2017
14	CPGT	09-Jul-2013	19-Okt-2017
15	INVS	03-Jul-2009	23-Okt-2017
16	BRAU	19-Agu-2010	16-Nop-2017
17	TKGA	06-Jan-1992	16-Nop-2017
18	LAMI	18-Jul-2001	28-Des-2017
19	DAVO	22-Des-1994	21-Jan-2015
20	BAEK	08-Jan-2008	10-Sep-2015
21	UNTX	16-Jun-1989	07-Des-2015
22	ASIA	20-Okt-1994	27-Nop-2014
23	INCF	27-Jul-1990	19-Feb-2013
24	PAFI	01-Jan-2000	14-Mar-2013
25	IDKM	04-Okt-2004	01-Mei-2013
26	PWSI	10-Mar-1994	17-Mei-2013
27	CPDW	18-Jun-1990	12-Sep-2013
28	SAIP	03-Mei-1993	31-Okt-2013
29	KARK	20-Jul-2001	27-Des-2013
30	SIIP	08-Jan-1998	28-Feb-2012
31	MBAI	28-Feb-1994	02-Jul-2012
32	RINA	14-Jul-2009	01-Okt-2012
33	SIMM	28-Mar-2000	03-Des-2012

Source: Sahamok (data update 20 January 2019)

From 2012 to 2019, 33 companies had to experience delisting, of which 33 were 5 sub-property and real estate companies that were on the delisting list, in other words, companies in the property and real estate sub-sectors had a percentage of 15.15% of the number of delisting companies. Buoyed by the large number of investors who have halted activity due to erratic economic conditions and many business deals affected. So the profit generated was not as expected due to the slowing of the sale process of the property.

LITERATURE REVIEW

Profitability Ratio

Profitability is the comparison between profit and assets or capital of the company that generates profit and expressed as a percentage. Profits earned from activities carried out are a picture of a company's performance in running its business. Managing and Maintaining the level of profitability is very important for a company because high profitability is the goal of every company. When the result from the development of the profitability ratio, it shows an increase which means it shows good and efficient company performance.

Profitability ratio is a ratio to assess the company's ability to produce benefit or profit in a certain period (Kasmir, 2014: 115). In this study, the writers chose the ratio of net income to company revenue / sales. According to Kasmir (2015: 235), Net Profit Margin (NPM) is a ratio used to measure a company's ability to generate net income from its main operating activities. The better the operation of a company and will have an impact on the increase in stock prices as well (Lukman Syamsuddin, 2004). This ratio assessment certainly has advantages and disadvantages so that in this study using the ratio approach to minimize the existing weaknesses, it is hoped that the measurement of profitability for the company will be more valid and relevant.

The NPM formula is stated as follows:

$$NPM = \frac{\text{Net Profit}}{\text{Sales}} \times 100\%$$

Leverage Ratio

Fitriyah and Hariyati (2013) said that leverage ratio is the ability of a company to depend on debt funding. If management takes advantage of debt that is too large in funding the company's operations, this can endanger the company because the company will fall into the extreme leverage category, where the company is trapped in high debt levels and it is difficult to release the debt burden.

In this study, the writers measure the leverage ratio using the ratio of total debt to total assets owned by the company or basically called Debt to Assets Ratio (DAR). According to Munawir (2010: 105), Debt to Assets Ratio (DAR) is the ratio between total debt and assets. This ratio is used to measure how much the company's assets are financed by its total debt. The higher this ratio, the greater the amount of loan capital used to invest in assets in order to generate profits for the company. The DAR formula is as follows:

$$DAR = \frac{\text{Total Liabilities}}{\text{Total Assets}} \times 1 \text{ times}$$

Financial Distress

According to Platt and Platt (Fahmi, 2014: 93), financial distress is the stage of a decline in financial conditions that occurs before bankruptcy or liquidation occurs. Meanwhile, according to Altman (2005) in Rahmy (2014), financial distress is a broad concept consisting of several situations in which a company faces financial difficulties. By calculating financial

distress, companies can find out whether the company's financial condition is in good condition or not and the results of this calculation can also be used by potential investors in making investment decisions.

Based on the definitions that have been put forward by some experts, it can be concluded that financial distress is a condition in which a company experiences financial difficulties which causes the company to no longer be able to fulfill its obligations or liabilities which can cause the company to go out of business.

Financial distress in this study will be predicted using the profitability ratio (NPM) and the leverage ratio (DAR). In this study, financial distress was proxied using the Altman Z-Score method.

In Nikmah and Dinna (2014) in 1968, Altman applied Multiple Discriminant Analysis (MDA) which is a regression technique of several uncorrelated time series variables using cut-off values to determine the classification criteria for each group for the first time Altman (1968). According to Altman and Hotchkiss (2005: 239), Multi Discriminant Analysis (MDA) or commonly called the Altman Z-Score Method is a statistical technique used to classify observations into one of several groups that are a priori dependent on the individual characteristics of these observations. Hanafi and Halim in Tabunan et al. (2015) explained that in 1982 and 1984, Altman developed a bankruptcy prediction model for several countries, from this study it was found that the new Z value for publicly traded companies, and in fact the Z-Score method. It has a validity rate of up to 95%.

After conducting research on the selected variables and samples, Altman produced the bankruptcy equation. The equation of the Altman Z-Score itself is as follows:

$$Z = 1,2X_1 + 1,4X_2 + 3,3X_3 + 0,6X_4 + 1,0X_5$$

X1: Working Capital to Total Assets

X2: Retained Earnings to Total Assets

X3: Earnings Before Interest and Taxes to Total Assets

X4: Market Value of Equity to Book Value of debt

X5: Sales to Total Asset

After that, after getting the Z-Score results, companies can be classified as healthy or bankrupt companies based on this following classifications:

- If the Z value < 1.81 then it is a bankrupt company (red area).
- If the value is $1.81 < Z < 2.67$ then it is a gray area company (it cannot be determined whether the company is healthy or going bankrupt).
- If the Z value > 2.67, it includes companies that have no potential for bankruptcy (green area).

In the research entitled "Analysis of the influence of Return On Assets, Net Profit Margin, Return On Equity, Debt to Equity Ratio and Debt to Assets Ratio to Predict Financial Distress in Manufacturing Companies Listed on the Indonesia Stock Exchange (IDX) for the 2014-2017 Period" written by Muhammad Abdul Muis said the Net Profit Margin (NPM) and Debt to Assets Ratio (DAR) variables partially had a positive and insignificant correlation coefficient value to financial distress in manufacturing sector companies listed on the Indonesia Stock Exchange for the 2014- 2017 period.

Meanwhile, other research conducted by Alfinda Rohmadini, Muhammad Saifi, and Ari Darmawan in the title "The Effect of Profitability, Liquidity, and Leverage on Financial Distress (Studies on Food & Beverages Companies Listed on the Indonesia Stock Exchange for the 2013- 2016 Period)" explained that Debt to Assets Ratio (DAR) simultaneously

affects financial distress.

In this study, bankruptcy calculations will be carried out using the Altman Z-Score model to see the prediction of whether the company will go bankrupt or not, and calculate the level of accuracy. In addition, based on previous research regarding the bankruptcy analysis that has been carried out, it has different results due to differences in the selected variables, sampling, differences in industrial sectors, as well as differences in the calculated ratios.

METHOD

This research is a type of collaborative research, namely research that includes data collection activities to select and determine between the relationship and the level of relationship between two and more variables. The research method used is quantitative research methods, because this type of research is systematic and uses mathematical models. The objects in this study are property, real estate and building construction companies listed on the Indonesia Stock Exchange in the 2015-2019 period.

With this research the writers intend to collect historical data and observe carefully about certain aspects which are closely related to the problem under study. The data used is in the form of secondary data, namely data obtained from existing sources. This study downloads data through the company's official website and the Indonesian Stock Exchange's official website, namely www.idx.co.id. The data that has been obtained are then processed, further analyzed with the basics of existing theories in order to obtain a description of the object and conclusions can be drawn about the problem under study.

The dependent variable in this study is financial distress, which is measured using the Z score Altman Model. Meanwhile, the independent variables in this study are Net Profit Margin and Debt to Asset Ratio. According to Sugiono (2015: 135), "In quantitative research, population is a generalization area consisting of objects or subjects that have certain quantities and characteristics that are determined by researchers to be studied and then draw conclusions." Meanwhile, according to Tersiana Andra (2018: 75), "The population is the entire research subject. If the researcher wants to examine all the elements contained in the research area, then the researcher is a population researcher. The population in this study were companies in the property, real estate and building construction sectors listed on the Indonesia Stock Exchange for the period 2015-2019.

According to Tersiana Andra (2018: 76), "The sample is part of a number and characteristics possessed by the population used for research, which later the conclusions of the study apply to the population", and according to Sugiono (2015: 81), "If the population is large, and researchers are not maybe studying everything in the population, for example, because of limited funds, energy, time, the researcher can use a sample taken from the population".

The place and time in this study were carried out at property, real estate, and building construction sector companies listed on the Indonesia Stock Exchange. For sampling, researchers visited the official website of the Indonesia Stock Exchange and the official website of the company. The research period starts on September 16, 2020 until completion.

RESULTS AND DISCUSSION

After going through a model test consisting of the Chow test, the Hausman test and the LM test, as well as the classification assumption test which shows that the data is suitable for further research, the results show that the best model is the random effect model as follows:

Table 2. Hypothesis testing using the random effect model

Dependent Variable: Z				
Method: Panel EGLS (Cross-section random effects)				
Date: 09/29/20 Time: 03:24				
Sample: 2015 2019				
Periods included: 5				
Cross-sections included: 77				
Total panel (unbalanced) observations: 329				
Swamy and Arora estimator of component variances				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
NPM	0.000917	0.001739	2.527312	0.0083
DAR	-0.060252	0.298116	-2.202110	0.0149
C	9.449899	6.344102	1.489557	0.1373
Effects Specification				
			S.D.	Rho
Cross-section random			55.32512	0.9589
Idiosyncratic random			11.45372	0.0411
Weighted Statistics				
R-squared	0.783962	Mean dependent var		0.961247
Adjusted R-squared	0.614567	S.D. dependent var		11.19645
S.E. of regression	0.122725	Sum squared resid		41092.67
F-statistic	2.854774	Durbin-Watson stat		1.126153
Prob(F-statistic)	0.018427			
Unweighted Statistics				
R-squared	-0.000158	Mean dependent var		10.04534
Sum squared resid	1005255	Durbin-Watson stat		0.046035

Source: Data processing through Eviews 9

Based on the table above, it can be seen that the optimal model test uses the F test with the criteria prob <significance (0.018 <0.05), which means that the model formed is optimal with the amount of financial distress explanation which can be explained by the NPM and DAR variables of 61.46%. Meanwhile, for hypothesis testing, it was found that the variables NPM and DAR had an effect on financial distress by using the criteria prob. <significance where the size of each criterion was for NPM 0.0083 <0.05 and for DAR 0.0149 <0.05.

CONCLUSION

Conclusion

Based on testing the net profit margin and debt to assets ratio on the financial distress of property, real estate and building construction companies listed on the Indonesian Stock Exchange (IDX) for the period 2015-2019, the conclusions that the authors can draw from the results of data analysis in the previous chapter are:

The results of testing bankruptcy predictions in the property, real estate, and building construction sectors listed on the IDX in the 2015-2019 period using the Altman Z-Score method, most companies have the potential to go bankrupt because the Z-Score average value is at red area and gray area.

1. Net Profit Margin has a positive and significant effect on the response variable, namely financial distress, proven to be statistically significant with the criteria for prob. <significance of 0.0083 <0.05. This means that the level of the net profit margin affects the level of the company's financial distress.
2. The effect of the debt to asset ratio on the level of financial distress is 0.0149 with sig 0.018 <0.05, which means that DAR has a significant positive effect. Therefore, it can be said that the higher the debt to total asset ratio of a company, the higher the possibility of the company experiencing financial distress.

Recommendations

1. This study uses the Altman model Z Score analysis in measuring Financial Distress. For

further research, you should use several other measurements in measuring financial distress, such as Spingate model analysis or calculating the Interest Coverage Ratio (ICR).

2. The company should still increase the company's profitability, so that the company will avoid the risk of bankruptcy due to the inability to pay debts.
3. The company should be careful in making a decision for the amount of additional capital (debt) from outside the company because of the risk that will arise from the high debt that triggers a bankruptcy.
4. The results of the Z-Score model analysis can be used as a description of the company to be invested and become a consideration in investment decisions.

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