Research Paper

Financial Health Indicators that Affect Return on Assets of Indonesian Guarantee Institutions

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Abstract

The amount of outstanding claims increased, and the Financial Service Authority, known as Otoritas Jasa Keuangan (OJK) had regulations to make them keep their performance financial health. The institution also needs to improve its financial performance, which may be affected by financial health. This research aims to find out and analyze the influence of financial health indicators on financial performance. The type of this research is classified as quantitative associative research. The study used secondary data of guarantee institution statistics that includes financial highlight, financial position, comprehensive income, investment portfolio, and operational performance of guarantee institutions for 78 months, from January 2016 to June 2022. This study used multiple linear regression analysis with analytical tools Eviews version 12. The indicator of financial health was using Early Warning System (EWS) and gearing ratio. EWS is proxied through the solvency margin ratio, adequacy of capital funds, incurred loss ratio, and liquidity ratio, while financial performance is proxied through return on asset. The result of this study shows that solvency margin ratio, adequacy of capital funds, and liquidity ratio affect financial performance, while incurred loss ratio and gearing ratio do not affect financial performance.

Keywords: *Financial Health Indicators; Early Warning System; Gearing Ratio; Financial Performance; Guarantee Institutions*

INTRODUCTION

To address the impact of the pandemic on the economy, the Government implemented adjustments to the stimulus and funding policies through the National Economic Recovery known as Pemulihan Ekonomi Nasional (PEN) program. The PEN program aims to minimize the impact of Covid-19 on the economy by supporting Micro, Small, and Medium-sized enterprises (MSMEs), which are a crucial part of efforts to save the national economy (Ministry of Finance of The Republic of Indonesia, 2021). One of the efforts to support the business sector in economic recovery is the provision of working capital credit guarantees to MSMEs business actors. The first objective of providing business capital loan guarantees to MSME actors is to reduce credit risk for MSME players as a result of the Covid-19 pandemic. In addition, this guarantee can also encourage the distribution of working capital loans from the banking sector to MSMEs.

Guarantee institutions are a non-bank financial industry in Indonesia. Guarantee institutions consist of guarantee companies and reinsurance companies. Guarantee institutions consist of guarantee companies and reinsurance companies. A credit guarantee company is a legal entity operating in the financial sector with the main business activity of running a credit guarantee where this credit guarantee is an activity of providing guarantees for the fulfillment of financial guarantee (Ministry of Finance of The Republic of Indonesia, 2021).

Indonesian Guarantee Institutions are regulated in Law Number 1 of 2016 concerning Guarantees, which took effect on January 19, 2016. The performance summary of Guarantee Institution can be seen in Table 1, source from OJK. The performance of the guarantee institution experienced a significant increase compared to the previous period. The guarantee institution continues to strive to improve its performance, but besides that, the guarantee institution has to maintain its level of financial soundness. Several health indicators, according to Satria (1994), are

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the Early Warning System (EWS) to assess financial ratios at guarantee institutions and provide early warnings of possible financial difficulties. Meanwhile, according to the Financial Services Authority Regulation Number 6/POJK.05/2014 concerning Business Implementation of Guarantee Institutions, it is stated that the guarantor must maintain the gearing ratio figure as one of the assessments of the health level of the Indonesian Guarantee Institution.

Table 1. Performance of Guarantee Institution in Indonesia from December 2016 until June 2022 In Billion Rupiah

Items	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21	Jun-22
Guarantee reveneu-net	758	811	182	401	691	1.195	607
Other operating revenue	657	707	774	851	1.191	1.409	865
Non operating revenue	285	325	453	514	11	13	9
Profit-net	835	769	397	603	417	607	574
Total assets	15.379	16.858	18.085	19.682	22.114	32.454	35.603
Total equities	12.060	12.933	12.927	13.651	12.499	14.641	14.488
Total outstanding guarantee	133.547	178.868	204.811	238.000	254.674	219.772	238.649
Number of guaranteed (thousand people)	5.140	6.290	11.842	13.460	15.434	17.997	18.523

Asimakopus et al. (2009) stated that financial performance is a vital element that is widely used to evaluate organizations because it clearly shows how managers were able to utilize the resource entrusted in their hands by the owners through an increase in income, profit, and increase in the wealth of shareholders through an increase in total value of the firm. One of the analyses of financial performance is the analysis of financial ratios seen through the balance sheet or income statement to find out the relationship between certain items. The financial ratio used is Return on Assets (ROA).

Based on the background that has been described, this research is to find out whether the health indicators at the Indonesian Guarantee Institution affect the value of ROA. The ratios used to represent EWS according to available financial data are the solvency margin ratio, adequacy of capital funds, the level of adequacy of funds, Incurred loss ratio, and liquidity ratio. In addition to the EWS ratio, another ratio used as a measure of the financial health of the Guarantee Institution is the Gearing Ratio. The purpose of doing financial ratio analysis is to find out and analyze through financial reports so that it is known how the company's financial performance is through ROA.

LITERATURE REVIEW

The purpose of evaluating company performance is to determine the level of profitability or profitability, liquidity, solvency level, and level of business stability. Beaver (1967) stated that decisions submitted by company management continuously are a form of company performance. The decision includes investment, operational, and financing decisions. The purpose of financial performance is to improve operational activities to compete with others and show investors or the public that the company has good credibility. Financial performance for decades has always been measured by research using various ratios, but the widely used ratio is profitability (Asuqou, et al., 2020). Assessment of financial performance can be seen from Return On Assets (ROA), wherein in several previous studies, the appraisal was influenced by financial ratios to check the level of financial soundness in guarantee institutions.

The soundness rating of the guarantee institution consists of the solvency margin ratio, adequacy of capital funds, incurred loss ratio, liquidity ratio, and gearing ratio. These ratios need to be maintained under applicable regulations. The solvency margin ratio is used to assess the magnitude of the financial capability of a general insurance company to assist with liabilities that may arise from covering risks that have been undertaken. The importance of this ratio is in describing the amount of coverage that can be covered by the company (self-retention) and the

actual capital capacity of the company. The level of risk that the company will accept will be determined through a comparison between its own retention and company capital (Satria, 1994). The low solvency margin illustrates that there is a risk caused by high premium receipts (risk acceptance). Research by Barakat et al. (2022) stated that the solvency margin has a positive and significant effect on the ROA variable. Meanwhile, research conducted by Widiastuti (2021) stated that the solvency margin ratio does not affect ROA.

H1: Solvency margin ratio has an effect on return on assets

Adequacy of capital funds is used to measure the level of adequacy of the company's funding sources with the total operations it has. This ratio is important because, in addition to describing the commitment of shareholders to managing the insurance company they own, it also affects the company's solvency, liquidity, and retention (Satria, 1994). If this ratio has a low number, it means that the company's condition is low on commitment from the owners in running their business. Previous research by Abebe & and Abera (2019) stated that the level of adequacy of funds is the main determinant of ROA. One of the variables in the research conducted by Arifin (2014) includes the ratio of the level of adequacy of funds to the results of financial performance, which is affected by the ratio of the level of adequacy of funds, but the financial performance in this study uses the underwriting ratio.

H2:Adequacy of capital funds has an effect on return on assets.

The incurred loss ratio reflects the experience of claims (loss ratio) that have occurred and the quality of the closing effort. The assessment of this ratio has an impact on the company's ability to earn profits from the insurance business and maintain the company's liquidity. A low ratio value will greatly impact the assessment of the company's ability to carry out technical insurance functions (underwriting) (Satria, 1994). Poor process information from underwriting and acceptance of risk closing can be assessed from the high value of the ratio. Research conducted by Husasanie & Joo (2019) stated loss ratio is significant in determining ROA. The results are different from those (Olalekan, 2018), which stated that the claim loss ratio has no significant effect on ROA.

H3: Incured loss ratio has an effect on return on assets

Liquidity ratios are an assessment of a company's ability to carry out its obligations and describe how the company's financial condition is assessed from a liquid condition or not. This ratio is the most important in determining the solvency of general insurance companies so that the large discriminatory ability of this ratio can be predicted (Satria, 1994). The company's illiquid financial condition can be judged from the high ratio. Therefore, the company needs to carry out an analysis of technical liabilities asset distribution, as well as the stability and liquidity of the expected wealth. Research by Husasanie & Joo (2019) suggests that the liquidity ratio influences ROA. Another study conducted by Al-Yatama et al. (2020) stated that the liquidity ratio has a negative effect on ROA.

H4: Liquidity ratio has an effect on return on assets

The Gearing Ratio based on the Financial Services Authority Circular Letter Number 18/SEOJK.05/2018 concerning the Financial Health of Guarantee Institutions is a comparison between the total self-paid guarantee and the equity of the Guarantee Institution at a certain time. Guarantee institutions that do not comply with the Gearing Ratio provisions are required to submit

plans to fulfill the Gearing Ratio that have been approved by the Board of Commissioners to the Financial Services Authority (Otoritas Jasa Keuangan, 2015) The plan for fulfilling the Gearing Ratio includes steps including restructuring the Guarantee or Re-Guarantee, stopping the provision of New Guarantee or Re-Guarantee, increasing capital or principal deposits and capital certificates by shareholders, and merging business entities. It is difficult to find references to previous studies that contain gearing ratios based on formulas by OJK regulation that affect ROA, so there is no comparison for this study. However, based on the regulations that apply to the health assessment of the Guarantor Institution, which requires the Gearing Ratio assessment.

H5: Gearing ratio has an effect on return on assets

RESEARCH METHOD

The type of this research is classified as quantitative associative research, which aims to examine the health indicators that influence financial performance. The study used secondary data of guarantee institution statistic that includes financial highlight, financial position, comprehensive income, investment portfolio, and operational performance of guarantee institutions for 78 months, which started from January 2016 to June 2022 source from OJK website (http://www.ojk.go.id.). Financial performance is proxied through return on assets was the dependent variable in this study, while the independent variables were solvency margin ratio, adequacy of capital funds, incurred loss ratio, liquidity ratio, and gearing ratio. The formula of variables in the study is presented in Table 2.

Table 2. Variabel Independent and Variable Dependent

Variables	Notation in Model	Formula
Solvency Margin Ratio	SMR	$\frac{\text{Paid up Capital} + \text{Spesific Reserves} + \text{Profit Net}}{\text{Premi Netto}}$
Adequacy of Capital Funds	ACF	$\frac{\text{Own Capital}}{\text{Total Assets}}$
Incurred Loss Ratio	LOSS	$\frac{\text{Total Claim Expenses}}{\text{Net RGS Revenue}}$
Liquidity Ratio	LQD	$\frac{\text{Total Current Assets}}{\text{Total Curent Liabilities}}$
Gearing Ratio	GR	$\frac{\text{Total Outstanding Guarantee}}{\text{Total Equities}}$
Return On Assets	ROA	$\frac{\text{Profit Net}}{\text{Total Assets}}$

Before doing multiple regression analyses, we first tested the classical assumptions used to test and ensure the feasibility of the regression model used in this study. This test includes a normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test. Furthermore, the research hypothesis was tested with the F-test (simultaneous test), the coefficient of determination test (R2), and the t-test (partial test) using Eviews version 12. The model of the research can be formulated:

$$ROA = a + b_1SMR + b_2ACF + b_3LOSS + b_4LQD + b_5GR + e$$

FINDINGS AND DISCUSSION

To find out the description of each research variable, descriptive statistical analysis was carried out. Analysis of this study includes analysis of minimum, maximum, average, and standard deviation values. The results of the analysis can be seen in Table 3.

Table 3. Descriptive Statistic and Explanation

Variable	Max.	Min.	Std. Dev	Criteria	Result
SMR	79.17538	1.651726	15.35242	Good if n > 0.333333	78 periods categorized as the healthy category
ACF	0.667274	0.376931	0.084989	Max. Limit = Mean + Std. Dev Min. Limit = Mean – Std. Dev	41 periods categorized as the healthy category
LOSS	1.109426	-0.095931	0.210587	Max. Limit = Mean + Std. Dev Min. Limit = Mean – Std. Dev	59 periods categorized as the healthy category
LQD	9.127634	2.284785	1.777347	1 (very healthy) if 130% ≤ n < 800% 2 (moderately healthy) if 120% ≤ n < 130% 3 (healthy) if 110% ≤ n < 120% 4 (less healthy) if 100% ≤ n < 110% 5 (unhealthy) if n < 100% or n ≥ 800%	75 periods categorized as a very healthy category
GR	20.45251	9.502874	3.002874	1 (very healthy) if 4 ≤ n < 28 2 (moderately healthy) if 28 ≤ n < 32 3 (healthy) if 32 ≤ n < 36 4 (less healthy) if 36 ≤ n < 40 5 (unhealthy) if n < 4 or n ≥ 40	78 periods categorized as very healthy category

In the classic assumption test, there are symptoms of autocorrelation. One way to overcome these symptoms is by transforming the variables into the first difference form (Ghozali, 2016). After the transformation, autocorrelation symptoms were still found, so the transformation was carried out again to the second difference form. This transformation resulted in the research observation being reduced to 76 data samples.

After the transformation test was done, it was shown that data is normally distributed with the value of probability is 0.184450 > 0.05. VIF value <10 with a tolerance value > 0.01 indicates that there are no symptoms of multicollinearity in this study. Heteroscedasticity test showed that probability value of Chi-Square 0.6146 is bigger than 0.05.There is no symptom of heteroscedasticity in this study. The autocorrelation test was done, which produced a probability value of Chi-Square 0.2705 bigger than 0.05, so there was no autocorrelation in this study. Simultaneous testing or the F test was shown that SMR, ACF, LOSS, LQD, and GR has a significant effect on ROA simultaneously because F-statistic 0.00000 < 0.05. The value of Adjusted R-squared

is 0.880856 shows approximately 88.1% of total variation in the dependent by the linear combination of the independent variables. The results of the hypothesis test summary can be seen in Table 4.

Table 4. Summary of Hypothesis Testing

Hypothesis	Explanation	Coefficient	Sig.	Result
H1	Solvency margin ratio has an effect on return on assets	-0.000648	0.0000	Accepted
H2	Adequacy of capital funds has an effect on return on assets	0.108230	0.0173	Accepted
H3	Incurred loss ratio has an effect on return on assets	-0.003312	0.5490	Rejected
H4	Liquidity ratio has an effect on return on assets	0.002178	0.0311	Accepted
H5	Gearing ratio has an effect on return on assets	0.000738	0.4679	Rejected

Solvency Margin Ratio (SMR) to ROA

The result contended that SMR has a significant effect on ROA. The solvency margin ratio has a significant effect on the institution's financial performance, which means that to support the obligations that arise, the company must maintain the company's financial capability level. Satria (1994) said that if the value is low, it indicates that there is a high risk due to premium receipts, but in this study, SMR and ROA have an inverse relationship. If SMR has a value that tends to be low, it will increase the ROA value. In some cases, even though there is an increase in the ability to bear the risk, it does not make an increase in income. The results of this study differ from Widiastuti (2021) that the solvency margin ratio does not affect the financial performance variable, namely ROA.

Adequacy of Capital Funds (ACF) to ROA

This study was shown that ACF affects ROA. This means the second hypothesis is accepted. One of the most important ratios that can represent the entire Early Warning System (EWS) is to assess the soundness of an insurance company. The ACF calculation is used to measure the adequacy of the company's financial resources in its total operations. ACF influences financial performance because this ratio uses assets in its calculations as well as financial performance. ACF shows how the level of adequacy of its funding sources can overcome the risk of loss so that if the risk can be overcome, it will have an impact on financial performance. Guarantee Institutions have high capital adequacy and have the opportunity to gain profits from operational activities that are carried out efficiently. The results of this study support the results of Abebe & Abera (2019), stating that the level of adequacy of funds is the main determinant of financial performance, namely ROA and ROE or, in other words, affects ROA.

Incurred Loss Ratio (LOSS) to ROA

This study stated that there is no significant effect between LOSS and ROA. The calculation of the claim expense ratio is done by comparing the claim expense with premium income. The assumption is that with high premium income, there will be an increase in claims expense so profitability is negatively affected because the number of expenses incurred cannot be fully covered by income. In this study, LOSS does not influence on financial performance, namely ROA. Even though this ratio provides information on the ability of revenue to cover expenses, it is necessary to check beforehand whether there are certain relatively large claims which are the source of the

high ratio. LOSS includes a ratio to assess the company's financial soundness level, this assessment reflects the company's ability to cover claim expenses with premium income/ Return Guarantee Services (RGS). This assessment shows the company's financial ability to pay claims but not enough to influence the profitability ratio, namely ROA. The results of this study differ from research conducted by Husasanie & Joo (2019), which stated that the claim expense ratio influences financial performance as assessed by ROA.

Liquidity Ratio (LQD) to ROA

The results contended that there is an influence between LQD and ROA. This ratio compares the amount of liabilities with the total wealth allowed. LQD reflects the ability of the Guarantee Institution to meet financial obligations that must be fulfilled immediately. The guarantee institution must maintain the level of liquidity because when the level of liquidity is good, the guarantor institution will be more effective in obtaining profits, which will have an impact on financial performance. If the level of liquidity is in good condition, it indicates that financial performance is in good condition because it can pay all its short-term guarantee on time and has a positive impact on increasing capital. Being in a healthy condition allows LQD to have an impact on ROA. The direction of the relationship between the two variables is a unidirectional relationship where if LQD increases, ROA will also increase.

Gearing Ratio (GR) to ROA

This study showed that GR affects ROA. By the provisions set by the OJK, namely, the Guarantee Institution must maintain a total gearing ratio of no more than 40 times the value of its equity. Overall, judging from the average GR, which is 15.48383 or 15 times the value of its equity, it has a value of 1 (very healthy). If this ratio is higher, it indicates that there is a high risk that must be watched out for. The high value of this ratio reflects the risk that the Guarantee Institution will face bankruptcy. This is not by the test results where the direction of the relationship between GR and ROA is unidirectional. If based on the theory, a good GR if it has a low value, but in testing, if GR increases it will make ROA increase as well.GR is the limit for continuously monitoring the increase or decrease in the amount of debt from year to year. GR measures the amount of funds that borrowers provide to the owner of the company. Even though achieving the target of outstanding guarantees is the goal, GR needs to be maintained with a maximum value of 40 times its total equity. The increase in outstanding guarantees must be accompanied by an increase in equity. Although the value of GR is classified as very healthy, GR is still not able to influence the profitability ratio. The results of this study have no comparison with previous research because of the limited references to the relationship of this variable to the Guarantee Institution.

CONCLUSIONS

Based on the results of research on health indicators that affect the financial performance of the Indonesian Guarantee Institute for the observation period from January 2016 to June 2022, it can be concluded that there is an influence between the solvency margin ratio, adequacy of capital funds, liability to liquid assets ratio to financial performance. Meanwhile, the incurred loss ratio and gearing ratio have no effect on financial performance. It is suggested to parties who have an interest in the Indonesian Guarantee Institution to consider the solvency margin ratio, the level of adequacy of funds, and the liquidity ratio to improve the institution's financial performance. Judging from the level of health, there is still a ratio that still does not meet the required level of soundness. The Indonesian Guarantee Institution needs to maintain the soundness of the ratios.

LIMITATION & FURTHER RESEARCH

The limitation of the research is that the data source used in the study is in the form of combined financial reports from several companies included in the Indonesian Guarantee Institute so that they reflect general financial performance and do not yet describe the financial performance of each company in it. For further research, it is recommended to examine each guarantee company to find out in more detail the level of health indicators and financial performance.

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