Assessment of Banking Conditions on Financial Distress During the Period of COVID-19 in Indonesia

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Abstract: This study was conducted to analyze the effect of liquidity ratios (LDR), profitability (ROA), and leverage (CAR) on the financial difficulties of banking companies listed on the Indonesia Stock Exchange (IDX) for the 2020-2021 period, moderated by credit risk during the COVID-19 pandemic. 19. Financial Distress was measured using the Altman Z-Score model, and compared with conditions before the 2016-2019 pandemic, so that the research data was taken from the annual report for the 2016-2021 period. The samples collected were 27 companies. This study uses quantitative analysis techniques with linear regression and processed using SPSS 22. The results of this study indicate that during the pandemic period and before COVID-19 in Indonesia, liquidity, profitability and leverage ratios have a significant effect on financial difficulties. Credit risk as a moderating variable can only strengthen the influence of the liquidity ratio and profitability ratio. Meanwhile, the leverage ratio cannot be moderated by credit risk. In the pre-pandemic period of 2016-2019, it showed that the ratio of liquidity, profitability, and leverage could not be moderated by credit risk. The findings in this study explain that banking conditions are not in financial difficulty during the pandemic, but profits for companies are low. This anomaly is caused by over-liquidity from credit that is not widely distributed to the business sector.

Key-Words: Financial Distress, Liquidity, Profitability, Leverage, Credit Risk.

1 Introduction

Banking is one sector that plays an important role in encouraging the economy of a country. Banking is one of the drivers of the economy either directly or indirectly. Banking also has a very important role as described in Article 4 of Law no. 10 of 1998 concerning Banking, which aims to support the implementation of national development in the context of increasing equity, economic growth, and national stability in the direction of increasing the number of people. Thus, banking organizations are obliged to realize socio-economic welfare. This shows that banks have a significant role in society and the economy, [1]. The dominant contribution from the banking industry to the financial services industry is that the banking industry can sustain and increase gross domestic product, [2]. Lutfie and Priansa stated that the banking industry is the industry most vulnerable to economic shocks.

Due to the COVID-19 pandemic that hit around 215 countries in the world, there has been a highly significant change in the global economic order and has an impact on the downturn in the economic sector. The COVID-19 outbreak that has emerged in China since 2019, was found in its first case in Indonesia in early March 2020. The government has taken several new strategic policies, especially in the economic sector. The economic downturn caused by the policy of limiting large-scale activities in Indonesia and the "Lock-Down" in other countries, made the banking sector have a slump in revenue decline, due to non-performing loans. Instead of bad debt as the main factor, several factors affected financial conditions, including capital, decrease in profit, and the number of third-party funds allocated for credit. It is also experienced by several banks and non-bank financial institutions in Indonesia and not a few that could not survive so they must go out of business. Consequently, it is necessary to take precautions in helping investors measure and develop the company's finances for now and after time. Numerous predictive models that are feasible to prevent FD conditions from occurring continued to be implemented by researchers in anticipating the risk of bankruptcy. Elicited from the prior, one of the risks that aroused in the banking sector in conditions of a weakening economy during a pandemic is FD, where this condition can be considered the main cause of bank defaults, namely the risk of bad loans, [3]. The credit creation program is an activity to generate the main income

for banks, [4]. The credit creation program is an activity to generate the main income for banks. Kargi also delineated those non-performing loans were the prominent factor affecting FD. If the ratio of bad loans continues to increase, it will cause liquidity problems and even lead to bankruptcy. The ability to maintain prudent financial performance in measuring/anticipating risk can prevent bankruptcy. Some studies relevant to the FD topic area, [5], [6], [7], [8], [9] including academic researchers in [10], [11], [12], [13]. This analysis of financial distress during the 2020-2021 pandemic is important to see how the condition of banking performance is compared to conditions before the pandemic from 2016-2019. Because in 2018, the Deposit Insurance Corporation (LPS) recorded that 89 banks had been liquidated. These banks have been operating since 2005 until the first semester of 2018. Then in 2019 LSP has also closed 9 more banks, bringing the number of banks that have been liquidated to 101 banks. Bankruptcy is a condition that describes a company experiencing a cash shortage so that it is unable to pay off its obligations, [1]. Predictions for the occurrence of FD are different, but one of the risk factors is credit risk, with several other researchers stating that credit risk has a positive effect, so that it could get a big chance of profits, [14] due to several factors including capital adequacy, profitability, liquidity known in a conceptual framework called the CAMELS method which stands for Capital (C), Asset Quality (A), Management (M), Earning (E), Liability or Liquidity. (L), and Sensitivity to Market Risk (S) [8], [11], [15], [16]. Several factors that scope of the research have a strong potential to avoid FD conditions include capital adequacy which is represented in CAR, the level of profit/profitability is represented in ROA and liquidity is represented in LDR, where the variable is moderated by credit risk. The prior study carried out by [11] and [15] revealed that CR influences FD, but another study stated that CR could not influence FD [14], [12]. However, there are still inconsistencies in study findings related to the effect of CR moderation on FD. It becomes a research gap that needs to be re-examined whether other variables cause the inconsistency of these findings.

2 Literature Review

2.1 Financial Distress
FD is an inability condition of a company to meet the financial obligations to creditors, [17], [18]. Manifestations of FD conditions take various forms,

depending on the situation, such as bankruptcy, unclosed bonds, unpaid dividends, and priority shares, [19]. Bank sectors are responsible to take on the role of the driving force of the economy so that it will not have a negative impact during economic difficulties. However, a bank that is in financial difficulty and even on the verge of bankruptcy will interfere with the payment of activities and will disrupt the distribution of public credit, [20], [11], [12], [21]. The criteria used to predict the bankruptcy of companies other than manufacturing according to classify Z score > 2.99 is classified as a healthy company, while those with a Z score < 1.81 classified as a potential bankrupt company. Furthermore, the score between 1.81 up to 2.99 are classified as companies in gray area, [1].

2.2 Links between CAR and FD
The Capital Adequacy Ratio or CAR according to its source comes from internal banks and external (investors) which have a role to maintain bank liquidity if there are cash flow constraints caused by bad loans or defaults on distributed loans, [22]. CAR can also cultivate trust between depositors and regulators to support financing and increase the ability to cover the risk of loss, [23], [12], [24]. Based on the explanation, the hypothesis could be formulated as:

H1: CAR has a positive effect on FD.

2.3 Links between ROA and FD
ROA is employed to measure the company's profitability related to its ability to produce profits or values, [25], [26]. The banking performance value was assessed from the profits ratio toward the company's assets total, [27]. This finding indicates that the higher the company's ability to generate profits, the more efficient the asset turnover and firm value will be. This means that the value of the company is determined by the earning power of the company's assets and this will be increasingly in demand by investors, [28], [29]. *CAMEL* analysis stated that the banking performance built by implementing an analysis system, measurement, and selective control in avoiding financial difficulties potential could be measured from its ability to generate profits [30]. Based on the explanation, it could be constructed as the following hypothesis:

H2: ROA is positively impactful for FD

2.4 Links between LDR and FD
LDR measures the credit ratio distributed by the third party. The higher level of loans, the lower ratio of bank liquidity, [11]. If the management could not accomplish the short-term obligation based on the

plan, the company will suffer Financial Distress (FD) conditions due to the short-term debt return failure, [31]. Selling assets and other investments are the steps that should be taken in avoiding bankruptcy. This study is also supported and stated by the earlier study by [29], [30]. The investment factor is a concept of company development. Nevertheless, an excessively high investment ratio toward total assets will lead to Financial Distress (FD) conditions, [32]. As maintained by the explication, it could be hypothesized as:
H3: LDR has a positive impact on FD.

2.5 Links CR Moderates LDR on FD

CR as moderating variable for a bank was regarded as a risk of loss related to the possibility of the debtor who doesn't repay their debts, [22]. In the banking sector, credit management is one of the fundamental parts of risk management that must be controlled adequately and effectively for long-term survival, [33]. The return total on loans to the total amount of risky assets and funds was planned by the company to suppress credit risk which is usually named Risk Weighted Asset (RWA) in the business development concept. The higher the ratio of loans to the number of risky assets, the more potential for entering into FD conditions, [34]. CR is a measurement to assess the security value of a given loan to avoid the risk of FD, [35]. The prior findings by [36] suggested that tightening and controlling are crucial, especially in giving credit for reducing the further potential of bad loans. The control is meant to circumvent the credit risk so that bank has more desirable performance and could generate higher profits. In line with the elucidation, it could be formulated two hypotheses as follows:
H4: CR moderates the effect LDR on FD

2.6 Links CR Moderates ROA on FD

Profitability is a description of the capability in generating profits by using all the capabilities and resources of the company, [1]. The ratio that reflects the company's performance in generating profits is called the profitability ratio, namely ROA. This study uses ROA because it is based on one of the 5C approaches, namely capacity. The ability to generate profits and make prudent credit risk decisions can prevent companies from financial distress. Based on this explanation, the construction of the research hypothesis can be made as follows:
H5: CR moderates the effect ROA on FD

2.6 Links CR Moderates CAR on FD

The leverage ratio is a ratio that measures how much of a company's assets are financed by debt. Capital Adequacy Ratio (CAR) is one of the ratios used to measure leverage in carrying out its activities to finance credit, [37]. The consideration of the decision to give credit is a banking risk and if done properly it can increase the CAR so that it can avoid FD. Based on this analysis, the following research hypotheses can be built:
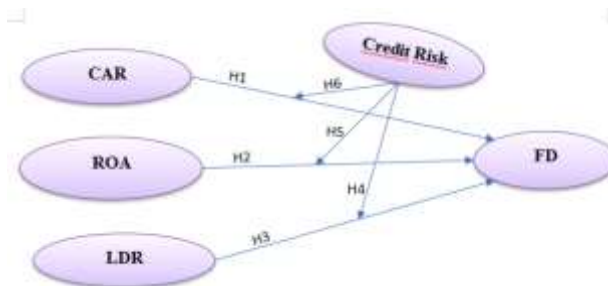**H6**: CR moderates the effect of CAR on FD

Fig. 1: Research Model

3 Research Method

The samples were banking companies registered on The Indonesia Stock Exchange (IDX) and reported their financial statements for the 2016 – 2021 period gradually with two steps analysis in 2016-2019 before the pandemic and 2020-2021 during the pandemic. The data collection technique was conducted based on population criteria which have been explained through sample criteria. Then, the study of banking financial statements was based on the ratio variables related to this research and the last was data processing.

Table 1. Sample Selection Results

	Total
Population: The banking company registered on The Indonesia Stock Exchange (IDX) from 2016 to 2021	46
Samples collecting criteria (*purposive sampling*):	
1. The companies which are not listed in IDX gradually from 2016 to 2021	(1)
2. Banking companies which are not reporting their financial reports from 2016 to 2021 gradually	(18)
Research samples	27
Samples total (n x research period) = (27 x 4 years) for before the pandemic (2016-2019)	108
Samples total (n x research period) = (27 x 2 years) for during the pandemic (2020-2021)	54

4 Research Variables

The results of the descriptive test in this research construct are presented in Table 2.

Table 2. Descriptive Results Test

Variables	N	Mean	Std. Deviation
CAR	108	0,2006	0,05690
	54	0,2319	0,07931
ROA	108	0,0229	0,02822
	54	0,0150	0,01645
LDR	108	0,8769	0,14201
	54	0,8826	0,21281
FD (Z Score)	108	7,3062	1,02509
	54	7,5244	1,62604
CR	108	0,0240	0,01669
	54	0,0226	0,01417

Source: Secondary data of banking performance reports in the year 2016 – 2021

According to table 2, it could be portrayed that the average capital value perceived by conventional commercial banks in Indonesia before pademic period is 20.06 percent. Then it increased during the pandemic to 23.19 percent. Bank Indonesia Regulation Number 15 of 2013 concerning the minimum capital adequacy requirement for commercial banks is 8 percent. It means that the minimum capital adequacy ratio has been fulfilled. The average ROA value of 2.29 percent before pandemic means that the profitability of banks was low, and it's getting lower during pandemic until 1.5 percent. Furthermore, the average value of liquidity before the pandemic was high enough to reach 87.69 percent, then increased during pandemic to 88.26 percent. The financial distress variable before pandemic showed score 7.306 and during pandemic was 7.524. Those Z score are >2.99, it's means that the companies are still healhty. The test results for the credit risk variable as moderation showed a value of 2.4 percent and decreased to 2.2 percent during the pandemic. The normality test can be seen in Table 3.

Table 3. Normality Test results

Unstandardized Residual			
N		108	54
Normal Parameters	Mean	0,000000	0,0000000
	Std. Deviation	0,035729	0,02879387
Most Extreme Differences	Absolute	0,055	0,085
	Positive	0,055	0,058
	Negative	-0,052	-0,085
Statistical Test		0,055	0,085
Asymp. Sig. (2-tailed)		0,200	0,200

Source: SPSS program processing results

Asymp sig. value. in the third table was gained 0.200 higher than 0.05. It means that the residual value in this study is assumed normal distribution. Overall, the VIF value of CAR, ROA, LDR, and CR variables is under 10, and the significance value of each independent variable is > 0.05.

Table 4. Heteroscedasticity test results

Variable (Constant)	VIF
CAR	1,184
ROA	1.052
LDR	1.190

Source: Secondary data testing results from SPSS Program

Multiple regression analysis testing results are as follows:

Table 5. Multiple Regression Analysis Results

Variables	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
CAR				
N= 108	6.640	0.132	50.427	0.000
N= 54	6.436	0.157	41.012	0.000
ROA				
N= 108	3.263	0.234	13.921	0.000
N= 54	1.387	0.624	2.223	0.031
LDR				
N= 108	6.788	0.031	219.905	0.000
N= 54	6.776	0.029	233.108	0.000
CR				
N= 108	2.746	1.401	1.960	0.053
N= 54	2.128	1.250	1.702	0.095
CAR*CR				
N= 108	-0.022	4.002	-0.001	1.000
N= 54	5.279	6.506	0.811	0.421
ROA*CR				
N= 108	-10.291	6.806	-1.512	0.134
N= 54	40.914	17.787	2.300	0.026
LDR*CR				
N= 108	-1.270	1.178	-1.078	0.284
N= 54	-3.281	1.470	-2.295	0.026

Source: SPSS Secondary Data Testing Results

Table 5 delineates the t value for CAR during the pandemic of 41.012 with a value of sig. 0.000 indicates that more capital will avoid FD conditions, this result is in line with, [36]. This Capital Adequacy Ratio (CAR) becomes crucial to ensure that banks have sufficient cushion to bear financial difficulties. Furthermore, the results of the ROA test obtained a t-count value of 2.223 with sig. 0.031 which indicates that the bank is still able to generate profits. This result is in line with previous research, [29], [31], [30], [38]. LDR with a t-count value of 233.108 and sig. 0.000 indicates that the loans disbursed are still healthy. This is in keeping with research [30] that stated that the effectiveness ratio in distributing funds in the form of credit must be kept positive. So, the test results shown in table 5 explain that the CAR, ROA, and LDR variables have a significant effect on FD, so this analysis answers hypotheses H1, H2, and H3. The t value of the CR variable was 1.702 and sig. 0.095 indicates that the higher the CR, the higher the potential for FD. The results of this study are also in line with research, [39], [36] which explains that lending is the main business of banking, but bad CR can be the main cause of FD. The results of the analysis of the CR variable test in moderating LDR during a

pandemic show that it can strengthen the effect of LDR on FD, so H4 is accepted. LDR is an indicator to assess the level of soundness and liquidity. The higher the LDR ratio, meaning that the bank will have difficulty meeting its short-term obligations, such as sudden withdrawals by customers of their deposits. However, the increasingly liquid bank situation with the large number of funds that have not been distributed is also unhealthy, [40]. But before the pandemic CR was not able to moderate LDR. Likewise, the CR variable in moderating ROA during a pandemic shows that CR can strengthen the effect of LDR on FD, so H5 is accepted. But before the pandemic CR was not able to moderate ROA. In contrast to the CR variable in moderating CAR during the pandemic and before the pandemic, it shows that CR is not able to strengthen the effect of CAR on FD, so H6 is rejected.

Table 6. Coefficient Result of Determination Testing

N	R	R Square	Adjusted R Square	Std. The error in the Estimate
108	1.000	0.999	0.999	0,03025
54	1.000	1.000	1.000	0,03091

Source: SPSS Secondary Data Testing Results

Table 6 explains that, the effect of CAR, ROA and LDR simultaneously with moderated CR on FD is 99.9 percent during the covid-19 pandemic, almost no different from before the pandemic.

5 Conclusions and Suggestions

The results of statistical test analysis in this study state that banking CAR is the fundamental strength of a company from financial difficulties. For this reason, the government sets a minimum adequacy ratio in maintaining the resilience of the financial business, meaning that the higher the level of capital adequacy ratio will guarantee the avoidance of financial distress.

In addition, every business organization is always oriented towards the ability to generate profits. The better ROA indicates good banking performance, so that it can prevent the company from financial difficulties. This study shows a positive profit, but lower than before pandemic. So it can be judged that the company is not in a state of financial distress.

Another important component is the ability to maintain liquidity through the LDR ratio which is an important key to the company's financial health. In

this study, it can be seen that banking liquidity both during the pandemic was higher than before, but it was still good.

Realization of credit disbursement must be maintained in balance, so that banks can maintain their liquidity. Prudent measures in making the decision to approve credit by taking into account the ratio of returns to the level of asset risk will reduce the risk of bad loans. This condition is understandable considering that during the pandemic there was a weakening of national economic activity.

During the COVID-19 pandemic, CR is considered to be able to strengthen financial ratios to avoid financial difficulties. Where the results of this study indicate that the liquidity ratio (LDR) and profitability ratio (ROA) can be strengthened by credit risk (CR), while the capital adequacy ratio (CAR) does not need to be strengthened by CR. This is because every bank must always maintain its capital adequacy ratio as determined by the government. However, before the pandemic CR did not strengthen the financial ratios that became the variables of this study, because in normal economic conditions banking companies competed to improve their performance.

Based on the conclusions above, it becomes clear that it is important to take preventive action by maintaining healthy financial ratios, so that bankruptcy does not occur.

References:

[1] Rowland, T. Setiawan, and A. Fitriningrum, "Jurnal Bisnis dan Akuntansi Unsurya RASIO KEUANGAN DAN UMUR BANK (Studi Pada Perbankan Yang Terdaftar di BEI 2016-2019) Jurnal Bisnis dan Akuntansi Unsurya," *Jurnal Bisnis dan Akuntansi Unsurya*, vol. 6, no. 2, pp. 82–93, 2021.

[2] D. J. Lutfie, Harrie. dan Priansa, *Manajemen Bisnis Perbankan Kontemporer*. CV PUSTAKA SETIA, Bandung., 2019.

[3] T. Chaiyakul, K. Bangassa, and M. Iskandrani, "Is Bankruptcy a Systematic Risk? Evidence From Vietnam," in *Handbook of Frontier Markets: The African, European and Asian Evidence*, 2016.

[4] H. S. Kargi, "Credit risk and the performance of Nigerian banks," *Acme Journal Accounting of Economics and Finance*, 2014.

[5] M. Brownbridge, "The causes of financial distress in local banks in Africa and implications for prudential policy," *UNCTAD Discuss. Pap.*, 1998.

[6] E. Altman, "Corporate distress prediction models in a turbulent economic and Basel II environment," *The Journal of Finance*, 2002.

[7] H. D. Plat and M. B. Plat, "Predicting Corporate Financial Distress: Reflections on Choice-Based Sample Bias," *Journal of Economics and Finance*, 2002.

[8] S. Rahman, L. H. Tan, O. L. Hew, and Y. S. Tan, "Identifying financial distress indicators of selected banks in Asia," *Asian Economics Journal*, 2004, DOI: 10.1111/j.1467-8381.2004.00181.x.

[9] E. Zaki, R. Bah, and A. Rao, "Assessing probabilities of financial distress of banks in UAE," *International Journal of Managerial Finance*, 2011, DOI: 10.1108/17439131111144487.

[10] S. W. Lee and D. J. Mullineaux, "Monitoring, financial distress, and the structure of commercial lending syndicates," *Financial Management*, 2004.

[11] M. R. Keffala, "Analyzing the effect of derivatives on the financial soundness of commercial banks in Italy: An approach based on the camel's framework," *Review of Financial Economics*, 2018, DOI: 10.1002/rfe.1020.

[12] S. G. Gadzo, H. K. Kportorgbi, and J. G. Gatsi, "Credit risk and operational risk on the financial performance of universal banks in Ghana: A partial least squared structural equation model (PLS-SEM) approach," *Cogent Economics and Finance*, 2019, DOI: 10.1080/23322039.2019.1589406.

[13] S. Purwanto, M. Setiawan, F. Rohman, and N. K. Indrawati, "Financial assistance, marketing assistance, and export commitment to improving export performance," *European Research Studies Journal*, vol. 21, no. 4, pp. 69–91, 2018, DOI: 10.35808/ersj/1104.

[14] J. G. Muriithi, K. MunyuaWaweru, and W. M. Muturi, "Effect of Credit Risk on Financial Performance of Commercial Banks Kenya," *IOSR Journal of Economics and Finance*, 2016, DOI: 10.9790/5933-0704017283.

[15] C. Gutiérrez-López and J. Abad-González, "Sustainability in the banking sector: A predictive model for the European banking union in the aftermath of the financial crisis," *Sustainability*, 2020, DOI: 10.3390/su12062566.

[16] N. Yurivin and W. Mawardi, "Analisis faktor-faktor yang mempengaruhi financial distress pada perusahaan perbankan di Indonesia," *Diponegoro Journal Management*, 2018.

[17] P. J. FitzPatrick, "A Comparison of the Ratios of Successful Industrial Enterprises With Those of Failed Companies," *Certificate Public Accounting*, 1932.

[18] A. Kamaluddin, N. Ishak, and N. F. Mohammed, "Financial distress prediction through cash flow ratios analysis," *International Journal Financial Research*, 2019, DOI: 10.5430/ijfr.v10n3p63.

[19] W. H. Beaver, M. Correia, and M. F. McNichols, "Financial statement analysis and the prediction of financial distress," *Foundations and Trends in Accounting*, 2010, DOI: 10.1561/1400000018.

[20] L. Kurniawati and N. Kholis, "Analisis Model Predeksi Financial Distress Pada Perusahaan Perbankan Syariah di Indonesia," *Seminar Nasional and The 3rd Call for Syariah Paper Accounting FEB UMS*, 2016.

[21] R. Aviantara, "Scoring the financial distress and the financial statement fraud of Garuda Indonesia with «DDCC» as the financial solutions," *Journal Modeling in Management*, 2021, DOI: 10.1108/JM2-01-2020-0017.

[22] S. Ashraf, E. G. S. Félix, and Z. Serrasqueiro, "Do Traditional Financial Distress Prediction Models Predict the Early Warning Signs of Financial Distress?," *Journal of Risk and Financial Management*, 2019, DOI: 10.3390/jrfm12020055.

[23] N. Hakiim, "Pengaruh internal capital adequency ratio (CAR), financing to deposit ratio (FDR), dan biaya operasional per pendapatan operasional (BOPO) dalam peningkatan profitabilitas industri bank syariah di Indonesia," *Mega Aktiva: Jurnal Ekonomi dan Manajemen*, 2018, DOI: 10.32833/majem.v7i1.55.

[24] N. A. Rosi and N.- Hasanuh, "The Influence Of Return On Asset, Debt To Assets Ratio And Current Ratio On Financial Distress," *E-Jurnal Ekonomi dan Bisnis Universitas Udayana*, 2020, DOI: 10.24843/eeb.2020.v09.i10.p04.

[25] P. T. Kartini, R. Maiyarni, W. Tiswiyanti, J. Akuntansi, F. Ekonomi, and U. Jambi, "Pengaruh Return on Asset (ROA), Return on Equity (ROE) dan Ukuran Perusahaan Terhadap Corporate Social Responsibility Disclosure," *Jurnal Riset Akuntansi dan Keuangan*, vol. 7, no. 2, pp. 343–366, 2019, DOI: 10.17509/jrak.v7i2.15636.

[26] N. K. Yuliani and I. N. Anggaradana, "Pengaruh net profit margin, return on asset, likuiditas terhadap financial distress (Studi kasus pada perusahaan agriculture terdaftar di bursa efek Indonesia periode 2017-2019)," *Jurnal Ilmu Akuntansi dan Bisnis*, 2021, DOI: 10.38043/jiab.v6i1.3007.

[27] N. P. A. K. Almira and N. L. P. Wiagustini, "Return On Asset, Return On Equiry, Dan Earning Per Share Berpengaruh Terhadap Return Saham," *E-Jurnal Manajemen Universitas Udayana*, 2020, DOI: 10.24843/ejmunud.2020.v09.i03.p13.

[28] H. Kablay and V. Gumbo, "Bank Distress Prediction Model for Botswana," *Asian Research Journal Mathematics*, 2021, DOI: 10.9734/arjom/2021/v17i230273.

[29] V. Diyanto, "The Effect of Liquidity, Leverage, and Profitability on Financial Distress," *Indonesian Journal of Economics, Social, and Humanities*, 2020, DOI: 10.31258/ijesh.2.2.127-133.

[30] R. A. Dwiantari, L. Gede, and S. Artini, "The Effect of Liquidity, Leverage, and Profitability on Financial Distress (Case Study of Property and Real Estate Companies on the IDX 2017-2019)," *American Journal of Humanities and Social Sciences Research*, 2021.

[31] N. Susanti, I. Latifa, and D. Sunarsi, "The Effects of Profitability, Leverage, and Liquidity on Financial Distress on Retail Companies Listed on the Indonesian Stock Exchange," *Jurnal Ilmiah Ilmu Administrasi Publik*, 2020, DOI: 10.26858/jiap.v10i1.13568.

[32] R. Ernayani, "Analisis Return On Asset , Financial Distress, Ukuran Dan Pertumbuhan Perusahaan Terhadap Auditor Switching," *Jurnal GeoEkonomi*, 2020.

[33] J. Stanley Isanzu, "The Impact of Credit Risk on the Financial Performance of Chinese Banks," *Journal of International Business Research and Marketing*, 2017, DOI: 10.18775/jibrm.1849-8558.2015.23.3002.

[34] L. N. Hidayati, "Pengaruh Kecukupan Modal (CAR), Pengelolaan Kredit (NPL), dan Likuiditas Bank (LDR) Terhadap Probabilitas Kebangkrutan Bank (Studi pada Bank Umum Swasta Devisa yang tercatat di BEI tahun 2009 – 2013)," *Jurnal Ilmu Manajemen*, 2015, DOI:

10.21831/jim.v12i1.11741.

[35] B. D. Zahronyana and D. P. K. Mahardika, "Capital adequacy ratio, non performing loan, net interest margin, biaya operasional, pendapatan operasional dan loan to deposit ratio terhadap financial distress.," *Jurnal Riset Akuntansi Kontemporer*, 2018, DOI: 10.23969/jrak.v10i2.1372.

[36] A. D. Buchdadi, X. T. Nguyen, F. R. Putra, and S. Dalimunthe, "The effect of credit risk and capital adequacy on financial distress in rural banks," *Accounting*, 2020, DOI: 10.5267/j.ac.2020.7.023.

[37] B. Prusak, "Review of Research into Enterprise Bankruptcy Prediction in Selected Central and Eastern Europian Countries," *International Journal Management Practice and Finance Study*, vol. 6, no. 10, 2018.

[38] A. Siallagan, "Universitas Sumatera Utara Poliklinik Universitas Sumatera Utara," *Jurnal Pembangunan Wilayah Kota*, vol. 1, no. 3, pp. 82–91, 2021.

[39] R. D. Setiyawati and Hartini, "Dampak credit risk management terhadap kinerja perusahaan perbankan yang terdaftar di Bursa Efek Indonesia," *Jurnal Ekonomi Kiat*, vol. 30, no. 1, pp. 76–81, 2019.

[40] D. R. Saputri Ayu Nadya, Widayanti Rochmi, "Edunomika – Vol. 03, No. 02 (Agustus 2019)," *Edumonika*, vol. 03, no. 02, pp. 352–363, 2019.

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Conflict of Interest
The authors have no conflicts of interest to declare that are relevant to the content of this article.