ANALYSIS OF THE EFFECT OF CREDIT RISK AND MARKET RISK ON BANKING CAPITAL SATISFACTION DURING THE COVID-19 PANDEMIC

Saezar Alamaint¹, Wisnu Mawardi²
Faculty of Economics and Business, Diponegoro University, Indonesia
Email: Saezar@gmail.com, wisnumawardi@gmail.com

Abstract
The COVID-19 pandemic has posed significant challenges to the financial stability of banking institutions around the world. This research seeks to conduct an empirical study to determine the effect of credit risk and market risk on capital security. This study aims to examine (1) the effect of Credit Restructuring, Non-Performing Loans (NPL), Net Interest (NIM) on Capital Adequacy Ratio (CAR) (2) the effect of NPL, NIM on Return On Assets (ROA) (3) the effect of ROA on CAR and (4) the effect of NIM, NPL to CAR with ROA as the intervening variable. The sample for this research is commercial banks registered with OJK in 2020 that meet the research criteria. The method of analysis in this study is path analysis which is the development of multiple and bivariate regression analysis. The research results show that Credit restructuring has a negative and insignificant effect, NPL has a negative and insignificant effect on CAR, NIM has a positive and not significant effect on CAR, NPL has a negative and significant effect on ROA, NIM has a positive and significant effect on ROA, ROA has a negative and significant effect on CAR, NPL has a direct influence on CAR through ROA, NIM has no effect on CAR through ROA.

INTRODUCTION
The financial crises in many countries in recent years have shown that bank failures are caused by insufficient capital to withstand risks. The increase in bank credit risk was caused by poor economic stability, such as inflation and depreciation of the exchange rate. This can reduce people's purchasing power and have an impact on business actors. For example, the 1998 financial crisis in Indonesia was caused by high Non-Performing Loans (NPL) and minimal bank capital conditions. Adequate capital provides resilience for banks in facing crises and provides flexibility for banks to expand their business. In maintaining the continuity of bank operations, the capital factor is crucial. One way to measure a bank's capital adequacy is to use the Capital Adequacy Ratio (CAR). By having a high CAR, banks will have better resilience in facing financial or economic crises, and also provide flexibility for banks to expand
their business. The higher the CAR level, the more comfortable and durable the bank is in carrying out its operational activities.

COVID-19 is an epidemic caused by a corona virus that appeared in Wuhan, China at the end of 2019 and spread throughout the world. Its spread affects public health and the global economy. According to Xing Xiazi and Mohsin Shabir (2022), this virus is not only a public health crisis, but also has a major impact on the global economy. From the economic side, the impact of COVID-19 began to be seen in the first quarter since the cases appeared. Based on BPS data, economic growth in the first quarter of 2020 experienced a slowdown compared to the previous quarter's economic growth, namely from 4.96% to 2.97%. the descent public demand and consumption have a significant impact on the company's cash flow. The company's revenue decreased while operating costs increased, causing losses in the company's finances. This greatly affects the ability of business actors to fulfill their obligations to the Bank. In fact, many companies have laid off their workers for cost efficiency and not a few business actors have closed their businesses because they experienced losses and were unable to meet their obligations amid a significant decline in income. This condition makes financial service institutions (banks and finance companies) face the threat of an increase in non-performing loans due to default debtors.

Banking sector policies were issued with the aim that business actors have time to manage financial conditions that have been disrupted due to the spread of COVID-19, including through credit restructuring. This policy was quite effective, among other things banking liquidity was maintained and large enough to finance credit expansion, the exchange rate was under control and the financial sector remained stable. However, credit risk has slowly shown an increase due to the reduced ability to pay debtors affected by COVID-19.

Based on data, the ratio of Non-Performing Loans (NPL) to banks has started to increase from before the pandemic, which was 2.53% (December 2019) to above 3% since May 2020 and had touched its highest in August 2020 of 3.53%. This reflects that the COVID-19 pandemic has disrupted the cash flow of business actors so that the credit performance of commercial banks in Indonesia is under pressure. The increase in NPLs during the pandemic was caused by sluggish economic conditions and a decrease in the volume of trade transactions, causing business actors to experience financial difficulties and failed to fulfill their obligations. Credit restructuring is a temporary measure to restrain the rate of NPLs, but does not increase significantly and disrupts banking resilience.

There are several studies that have examined the relationship between risk on capital security and yielded different conclusions. the conclusion that there is a positive and significant relationship between the level of risk and capital adequacy (Agustini and Artini, 2018). However, there are also different findings by Rasit (2015) which states that there is no relationship between the size of risk and capital. In various studies the level of risk and capital adequacy is calculated using non-performing loans and capital adequacy ratio variables. Research results regarding the relationship between non-performing load (NPL) and Capital Adequacy Ratio yield different conclusions. Research conducted by Bukian (2016), Astory (2013), Torki & Ghazi (2015) concluded that non-performing loans (NPL) have a positive and significant effect on capital adequacy ratio (CAR) while other studies conducted by Anderson ( 2013) concluded that non-performing loans have a positive and insignificant effect on the capital adequacy ratio.
In addition to credit risk, there are several studies that examine the effect of market risk on profitability and capital adequacy by measuring the variable NIM (Net Interest Margin) on CAR and ROA (Return on Assets) on CAR, as research conducted by Romdhane (2012) found that net interest margin (NIM) has a positive and significant effect on CAR while Krisna (2008) finds net interest margin (NIM) has no significant positive effect on CAR. The findings of subsequent research on return on assets (ROA) have various findings such as Padanun, et al (2019) who found that return on assets (ROA) had an insignificant positive effect on capital adequacy ratio (CAR) and Susanto and Rianto (2020) return on assets (ROA) and net interest margin (NIM) had an insignificant positive effect on capital adequacy ratio (CAR), further research conducted by Yatiningsih and Chabachib (2015) shows that net interest margin (NIM) has a positive and significant effect on return on assets (ROA) and the variable capital adequacy ratio (CAR) has a positive and significant effect on returns on assets (ROA) and variable non-performing loans (NPL) have a negative and not significant effect on return on assets. There are differences of opinion on the effect of risk on CAR from various previous studies,

The banking capital ratio appears to be still quite good and relatively high during the Covid-19 pandemic, but the potential risk is still quite high taking into account the increase in the NPL ratio, the relatively large number of loans restructured for creditors affected by Covid-19 and market risks which tend to increase during the Covid-19 pandemic is in line with the many opinions regarding the effect of credit risk (NPL and credit restructuring), market risk (NIM) and profitability (ROA) on capital resilience (CAR). This study also fills in the gaps in the literature on previous studies to re-examine the variables of banking capital resilience in times of crisis. Based on the background above, this study aims to analyze the effect of NPLs, credit restructuring.

METHOD

This research is an empirical study that aims to determine the effect of credit restructuring (rk), non-performing loans (npl), net interest margin (nim) on capital adequacy ratio (car) with return on assets (roa) as an intervening variable. This research was conducted at commercial banks registered with the financial services authority (ojk) in 2020 to test the resilience of bank capital during the covid-19 pandemic which was influenced by credit risk and market risk.

The data source used in this research is data secondary form of the dummy credit restructuring time series, car, npl, nim, roa ratios originating from the financial services authority in 2020 during the covid-19 pandemic. The population in this study are all commercial banks registered with ojk, totaling 107 banks. The sample in this study was carried out using a purposive sampling method, namely selecting a sample based on criteria such as (1) being registered with the ojk for the period 2020 – 2022 (2) publicizing financial reports and submitting them to ojk in full and having the complete ratios required for research. Based on these criteria, a sample of 535 observations was obtained for further regression.

The model of analysis carried out in this study was to use the multiple linear regression method using the spss statistics 20 program. The model in this study was
used to test the effect of the independent variables on the dependent variable and intervening variables. The regression estimation model in this study is as follows:

\[ Y_1 = \alpha + \beta_1 Restr \text{Kredit} + \beta_2 NPL + \beta_3 NIM + e \]  \hspace{2cm} (1)

\[ Y_2 = \alpha + \beta_1 Restr \text{Kredit} + \beta_2 NPL + \beta_3 NIM + \beta_4 ROA + e \]  \hspace{2cm} (2)

Information:

\( Y_1 \) = bank capital resilience (car)
\( Y_2 \) = profitability rate (roa)
\( \alpha \) = constant
\( \beta_1 \) = regression coefficient of credit restructuring affected by covid-19 \((x_1)\)
\( \beta_2 \) = regression coefficient of NPL \((x_2)\)
\( \beta_3 \) = regression coefficient of NIM \((x_3)\)
\( X_1 \) = credit restructuring affected by covid-19
\( X_2 \) = NPL
\( X_3 \) = NIM
\( X_4 \) = ROA
\( E_{1-2} \) = standard error

After carrying out multiple linear regression analysis, the next step is testing the hypothesis. The hypothesis testing method used in this study included a simultaneous significant test (statistical f test). Determination coefficient test \((r^2)\), and partial significant test (statistical t test).

RESULTS AND DISCUSSION

General Description of The Research Object

The sample for this study uses 103 banking companies in Indonesia in 2020, out of a total of 107 commercial bank companies in Indonesia in 2020, based on the criteria for the availability of financial reports and banking ratios.

Descriptive statistics

The number of valid samples in this study were 103 banking companies which were tested on the variables Credit Restructuring, NPL, NIM, CAR and ROA in 2020. It is known that the maximum and minimum values of the Credit Restructuring variable are 0 and 1 NPL are 0.190 and 9.62 while the average and standard deviation are 3.469 and 2.003. the maximum and minimum values of the NIM variable are -0.007 and 17.74 while the average and standard deviation are 4.13 and 2.40. The maximum and minimum values of the CAR variable are 12.37 and 161.74 while the average and standard deviation are 27.40 and 161.74 while the average and standard deviation are 27.40 and 18.02. The maximum and minimum values of the intervening variables are -7.95 and 8.71 while the mean and standard deviation are 1.32 and 2.08

Classic Assumption Test

Normality testthe normality test used in this study was the kolmogorov-smirnov nonparametric one-sample statistical test. The results of the kolmogrov-smirnov test in
this study showed a significant value of asymp. Sig(2-tailed) of 0.684 is greater than 0.005 (0.684 > 0.005) so it can be concluded that the data has been normally distributed. Autocorrelation test. The autocorrelation test in this study used the durbin-watson test. The results of the durbin-watson test show that a value of 1.885 indicates du < d < 4 – du where the value of 1.639 < 1.885 < 2.108 so based on this model it can be concluded that there is no autocorrelation disorder in the multicollinearity test. The multicollinearity test in this study uses the variance inflation factor (vif) value of each independent variable. The results of the tolerance calculation show that the variable tolerance value is more than 0.1 such as credit restructuring has a value of .883, npl is .731, nim is .830, roa is .607 and the results of calculating the variance inflation factor (vif) value of the independent variables show a higher value. Bsar of 10 such as credit restructuring of 1,132, npl of 1,367, nim of 1,205, roa of 1,647. Based on the results of tolerance and variance inflation factor (vif) it shows that there is no multicollinearity disorder between the independent variables in the regression model. Heterocodesity test. The heterocodesity test in this study used a p-plot diagram with no clear pattern and the points spread above and below the number 0 on the y axis.

Path Analysis Results

Path equation 1

\[ Y_1 = 32.829 - 1.977 - 1.705 + 0.574 + e \]

The results of multiple linear regression equation 1 show that the constant of the multiple linear regression equation is 32,829. This explains that if the credit restructuring, npl, nim and the value is 0 (zero), then the car is 32,829. The regression coefficient for the credit restructuring variable is (-1,977) and is negative, which means that for every change of one credit restructuring unit and the other variables are assumed to be constant, the amount of capital adequacy (car) will decrease by 1,977. The regression coefficient for the npl variable is (-1,705) and has a negative sign, which means that every change of one unit of npl and other variables is assumed to be constant, so the amount of capital adequacy (car) will decrease by 1,705. The regression coefficient for the nim variable is 0.

Path Equation 2

\[ Y_2 = 3.204 - 5.551 + .282 - 0.41 + e \]

The results of multiple linear regression equation 2 above the interpretation of the model show the value. The constant of the multiple linear regression equation is 3,204. This explains that if the npl, nim, car and their values are 0 (zero), then the roa is 3,204. The regression coefficient for the npl variable is (-.551) and has a negative sign which indicates that every change of one unit of npl and other variables is assumed to be constant, so the return on assets (roa) will decrease by 3.919. The regression coefficient for the nim variable is .282 and has a positive sign indicating that for every
change of one nim unit and other variables are assumed to be constant, the return on assets (roa) will increase by .282. The regression coefficient for the car variable is (-0).

**Determination Coefficient Test**

### Table 1

**Determination Efficiency Test Results**

<table>
<thead>
<tr>
<th>No</th>
<th>Information</th>
<th>R2 Value</th>
<th>Adjusted R2 Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Test Model 1</td>
<td>.222</td>
<td>.020</td>
</tr>
<tr>
<td>2</td>
<td>Test Model 2</td>
<td>.471</td>
<td>.455</td>
</tr>
</tbody>
</table>

The adjusted r square value of equation one path is 0.020, meaning that the credit risk free variable (credit restructuring, npl), market risk (nim) has an effect on capital adequacy (car) of 0.02% and the remaining 99.8% are other factors. The adjusted r square value of the second equation path is 0.455, meaning that the credit risk free variables (credit restructuring, npl), market risk (nim and roa) affect the return on assets (roa) of 45.5% and the remaining 44.5% are factors other. Based on the r2 value in the structure of the first equation and the two equations table 4.8, the total r value of the equation is as follows

1. The value of e1 in structural equation 1 is as follows: 
   \[ e1 = \sqrt{1 - r} = \sqrt{1 - 0.222} = 0.778. \]
2. The value of e2 in structural equation 2 is as follows: 
   \[ e2 = \sqrt{1 - r} = \sqrt{1 - 0.471} = 0.529. \]
3. Total r² = 1 - (e1² x e2²) = 1 - (0.778² x 0.529²) = 1 - 0.605 x 0.279 = 1 - 0.169 = 0.831

Simultaneous significance test (f test)

**Path equation 1**

### Table 2

**test of simultaneous significance of path equation 1**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of squares</th>
<th>Df</th>
<th>Meansquare</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1633752</td>
<td>3</td>
<td>544584</td>
<td>1711</td>
<td>.170</td>
</tr>
<tr>
<td>Residual</td>
<td>31512882</td>
<td>99</td>
<td>318312</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>33146634</td>
<td>102</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
variable credit restructuring, npl, nim do not have a simultaneous effect on capital adequacy (car)

Path Equation 2

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>MeanSquare</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>208,196</td>
<td>3</td>
<td>69,399</td>
<td>29,404</td>
<td>.000b</td>
</tr>
<tr>
<td>residual</td>
<td>233,658</td>
<td>99</td>
<td>2,360</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>441,855</td>
<td>102</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of the simultaneous significance test (test f) on the path of equation two show an f table value of 29.404 with a significance value of 0.000 less than 0.05 (0.05 > 0.00). Simultaneous f test results on the path of equation two show that the variables npl, nim, and car have a significant effect simultaneously on return on assets (roa)

Partial Significance Test (T Test)

Path Equation 1

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>32,829</td>
<td>8,635</td>
<td>3,802</td>
<td>.000</td>
</tr>
<tr>
<td>RK</td>
<td>-1977</td>
<td>8,413</td>
<td>-.235</td>
<td>.815</td>
</tr>
<tr>
<td>NPLs</td>
<td>-1,705</td>
<td>.919</td>
<td>-.190</td>
<td></td>
</tr>
<tr>
<td>NIM</td>
<td>.574</td>
<td>.747</td>
<td>.769</td>
<td>.444</td>
</tr>
</tbody>
</table>

The results of the partial significance test (t test) beta value of the regression coefficient of the credit restructuring variable is -2.356 and a significant value is .815.
The significant value above is .005 (sig > 0.05) with ho accepted, h1 is rejected which means that credit restructuring has a negative and insignificant effect on capital adequacy (car). The beta value of the regression coefficient for the npl variable is -1.855 and a significant value is .067. The significant value above is .005 (sig > 0.67) with ho accepted, h1 accepted, which means that npl has a negative and insignificant effect on capital adequacy (car). The beta value of the regression coefficient for the net interest margin variable is .067 and a significant value is .444. The significant value is above .005 (sig > 0.444) with ho being traumatized.

**Path Equation 2**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B std. Error Betas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant) 3.204 .512</td>
<td></td>
<td>6.260</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>NPLs -.551 .079 -.531</td>
<td>-7015</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NIM .282 .064 .326</td>
<td>4.381</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAR -.041 .009 -.357</td>
<td>-4.760</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

The regression coefficient value for the non-performing loan (npl) variable is - .531 and a significant value is .000. The significant value is below .005 (sig < 0.05) with ho being rejected, h1 being accepted which means that non-performing loans (npl) has a negative and significant effect on return on assets (roa). The regression coefficient value for the net interest marhin (nim) variable is -.326 and a significant value is .000. The significant value is below .005 (sig < 0.05) with ho being rejected, h1 being accepted which means that the net interest margin (nim) has a negative and significant effect on return on assets (roa). The regression coefficient value for the capital adequacy ration (car) variable is -.357 and a significant value is .000. The significant value is below .005 (sig < 0.05) with ho rejected.

**Direct Effect, Indirect Effect, And Total Effect on Each Variable**

![Diagram of Regression Coefficients]
Summary Of Hypothesis Testing

The following table is a summary of the hypothesis testing for each hypothesis proposed in this study. Following are the results of the hypothesis in this study.

<table>
<thead>
<tr>
<th>Path Equation</th>
<th>H</th>
<th>Details</th>
<th>Test Result</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Path Equation 1</td>
<td>H1</td>
<td>Credit Restructuring Policies Will Reduce Capital Adequacy</td>
<td>Credit Restructuring Has A Negative And Insignificant Effect</td>
<td>H1 Is Rejected</td>
</tr>
<tr>
<td></td>
<td>H2</td>
<td>An Increase In Npl Will Reduce Capital Adequacy</td>
<td>Npl Has A Negative And Insignificant Effect On Car</td>
<td>H2 Is Rejected</td>
</tr>
<tr>
<td></td>
<td>H3</td>
<td>An Increase In Nim Will Increase Capital Adequacy</td>
<td>Nim Has A Positive And Not Significant Effect On Car</td>
<td>H3 Is Rejected</td>
</tr>
<tr>
<td>Path Equation 2</td>
<td>H4</td>
<td>An Increase In Npl Will Reduce The Level Of Banking Profitability</td>
<td>Npl Has A Negative And Significant Effect On Roa</td>
<td>H4 Is Accepted</td>
</tr>
<tr>
<td></td>
<td>H5</td>
<td>Nim Reduction Will Reduce The Level Of Bank Profitability</td>
<td>Nim Has A Positive And Significant Effect On Roa</td>
<td>H5 Accepted</td>
</tr>
<tr>
<td></td>
<td>H6</td>
<td>A Decrease In Capital Adequacy Will Reduce The Level Of Bank Profitability</td>
<td>Car Has A Negative And Significant Effect On Roa</td>
<td>H6 Is Rejected</td>
</tr>
<tr>
<td>Direct Influence, Indirect Influence And Total Influence</td>
<td>H7</td>
<td>Increasing Capital Adequacy Will Increase In Line With The Decrease In Bad Loans Through Increasing Profits (Profitability)</td>
<td>Non-Performing Loans(Npl) Has An Influence On Capital Adequacy Ratio (Car) Through Return On Assets (Roa)</td>
<td>H7 Accepted</td>
</tr>
</tbody>
</table>

Discussion
Effect Of Covid-19 Credit Restructuring On Car
Credit restructuring has a negative and insignificant effect on banking capital adequacy in 2020. The COVID-19 credit restructuring policy has an impact on short-term bank cash flows because one form of credit restructuring is the suspension of payment of credit interest or loan principal so that it will affect bank profits and reduce the amount of bank capital in providing funds to finance its activities. The results of this study also prove that the existence of a credit restructuring policy will reduce bank capital adequacy but is not a significant factor affecting capital adequacy (CAR).

Effect Of Non-Performing Loan (NPL) On Capital Adequacy (CAR)
NPL has a negative and insignificant effect on the Capital Adequacy Ratio (CAR) of banking capital adequacy in Indonesia. The results of this study are not in line with research conducted by Tracey (2011), Buyuksalvarci and Hasan (2011), Rianto and Salim (2020), Hamidah Mahdiyah, and Umi (2021) which state that NPL has a negative and significant effect on capital adequacy (CAR). This condition occurs because theoretically if the NPL increases, it means that there is an increase in non-performing loans with a greater percentage than the percentage increase in total loans distributed by banks, so that banks experience a decrease in interest income and need to form reserves which causes decreased income, decreased profits, decreased capital and decreased CAR. The results of this hypothesis are also supported by the condition of banking NPLs during the pandemic where the fluctuation of the banking Non Performing Loan (NPL) ratio began to increase since the emergence of COVID-19 in China by 2.53% (December 2019) to above 3% since May 2020 since the activity restriction policy was implemented and had touched the highest figure in August 2020 of 3.53%.

Effect Of Net Interest Margin (NIM) on Capital Adequacy (CAR)
Net interest margins (NIM) has a positive but not significant effect on car. The results of this study are not in line with buyuksalvarci and hasan (2011), romdhane (2012), anjani and ketut (2014), rianto and salim (2020), hamidah, husna mahdiyah, and mardiya iti umi (2021). This happens because higher profitability provides better opportunities to increase new capital, the higher the nim, the more effective the bank is in placing productive assets in the form of credit and has an influence on the pros and cons of banking intermediation activities, thereby encouraging an increase in car.

Effect Of Non-Performing Loans (Npl) On Return On Assets (ROA)
Non-Performing Loans has a negative and significant impact on Return on Assets (ROA). These findings are in line with research conducted by Putra and Rahyuda (2021) showing that NPL has a negative effect on ROA, further research conducted by Inggawati et al. (2018), Yuhasril (2019), and Dewi & Badjra (2020) state that NPL has a negative and significant effect on ROA.

This occurred because of the increase in non-performing loans (NPL) during the covid-19 pandemic which caused an increase in the financial burden for banks. A high level of non-performing loans (NPL) indicates a high credit ratio increase in the bank's loan portfolio. The covid-19 pandemic, which has caused a decline in public income
and increased bank credit risk, has forced banks to allocate funding resources to deal
with problem loans, recovery of accounts receivable, payments to DPK.

**Effect Of Net Interest Margin (NIM) On Return on Assets (ROA)**

Net Interest Margins (NIM) has a positive and significant effect on Return On Assets (ROA). These findings are in line with Yatiningsinh and Chabachib (2015) that NIM has a positive and significant effect on ROA, further research conducted by Yuhasril (2019), Astuti (2020), and Sanny and Dewi (2020) stated that net interest margin (NIM) positive and significant effect on return on assets (ROA). These findings indicate that an increase in net interest margin (NIM) will have an impact on increasing bank profitability as reflected in higher ROA.

**Effect of return on assets (ROA) on capital adequacy ratio (CAR)**

Return on assets(ROA) has a negative and significant effect on capital adequacy ratio (CAR). These findings are not in line with the arguments and results of previous studies which state that ROA has a positive and significant effect on CAR. The results of this study are different from previous studies because during a pandemic the tendency for banks to make capital adequacy (CAR) a top priority in maintaining financial stability and security given the increasing credit risk (NPL) and market risk in line with economic uncertainty during the pandemic. In situations of low capital resilience, banks will focus on increasing capital to maintain the soundness of the bank. In addition, this condition can be caused by a decrease in interest income, which is reflected in the declining NIM.

**Effect Of Non-Performing Loans (NPL) On Capital Adequacy Ratio Through Return On Assets (ROA)**

Return On Assets can be an intervening variable influencing Non-Performing Loans (NPL) on Capital Adequacy Ratio (CAR). These results indicate that increasing the Capital Adequacy Ratio (CAR) can be done by first increasing the level of bank profits in line with reducing the remaining Non-Performing Loans (NPL). This means that variable capital resilience Capital Adequacy Ratio (CAR) can be achieved by increasing bank profits, because when the NPL level increases, banks need to allocate more capital to cover higher credit risk, which in turn can reduce CAR so that it can be done to increase ROA. when ROA increases, banks can generate higher profits from their assets. This can contribute to an increase in CAR.

**Effect of Net Interest Margin (NIM) on Capital Adequacy Ratio through Return On Assets (ROA)**

Return On Assets cannot be an intervening variable that influences Net Interest Margin (NIM) on Capital Adequacy Ratio (CAR). These results indicate that to increase the Capital Adequacy Ratio (CAR) it is better to do it directly to increase the level of Net Interest Margin (NIM). This means that capital security through the Capital Adequacy Ratio (CAR) variable, is better done directly by increasing the Net Interest Margin (NIM) because the level of Return On Assets cannot be used to cover the level of capital security so that banking can be done by increasing the banking profit level first in line by reducing the remaining Non-Performing Loans (NPL). This means that variable capital resilience Capital Adequacy Ratio (CAR) can be achieved by increasing
bank profits, because when the NPL level increases, banks need to allocate more capital to cover higher credit risk, which in turn can reduce CAR for that can be done to increase ROA, when ROA increases, banks can generate higher returns from assets owned. This can contribute to an increase in CAR, because banks have more profit that can be used to strengthen their capital, this is because banks can quickly increase their net interest margin (NIM), higher NIM banks tend to have the ability to generate higher interest income. greater than the cost of funding which will affect the banking capital structure. when ROA increases, banks can generate higher profits from their assets. This can contribute to an increase in CAR, because banks have more profit that can be used to strengthen their capital, this is because banks can quickly increase their net interest margin (NIM), higher NIM banks tend to have the ability to generate higher interest income. greater than the cost of funding which will affect the banking capital structure. when ROA increases, banks can generate higher profits from their assets. This can contribute to an increase in CAR, because banks have more profit that can be used to strengthen their capital, this is because banks can quickly increase their net interest margin (NIM), higher NIM banks tend to have the ability to generate higher interest income. greater than the cost of funding which will affect the banking capital structure.

CONCLUSION

The conclusion of the research from testing and analyzing data on banking during the covid-19 pandemic for the 2020 period credit restructuring had a negative and insignificant effect on capital adequacy, which means that credit restructuring during the covid-19 pandemic did not significantly affect banking capital adequacy. Non-performing loans (npl) have a negative and insignificant effect on capital adequacy, which means that the higher the bank's npl value during the covid-19 pandemic was not significant in maintaining banking capital adequacy. Net interest margin (nim) has a positive and insignificant effect on capital adequacy, which means that a higher nim (interest income) does not significantly increase capital adequacy during the covid-19 pandemic. Non-performing loans (npl) have a negative and significant effect on return on assets (roa), which means that lower non-performing loans will increase banking profit levels during the covid-19 pandemic. Net interest margin (nim) has a positive and significant effect on return on assets (roa), which means that the higher the banking net interest margin will increase the level of bank profits during a pandemic. Return on assets (roa) has a negative and significant effect on the capital adequacy ratio (car), which means that a decrease in the level of bank profits during the pandemic reduced the level of banking capital adequacy. Return on assets is an intervening variable that influences non-performing loans (npl) and capital adequacy. Ratios (car), meaning that lowering the level of non-performing loans (credit risk) can increase the return on assets (level of profitability) which affects the level of capital adequacy ratio (capital resistance). Return on assets is not an intervening variable that influences net interest margin (nim) and capital adequacy ratio (car), meaning that increasing the level of net interest margin (nim) is more effective in increasing the capital adequacy ratio (car) for the resilience of banking capital during a pandemic, rather than increase the level of profitability in banking assets.
REFERENCES
Margaretha, Farah and Diana Setiyaningrum. 2011. The Effect of Risk, Management


Now, Uma and Bougie, Roger. 2016. Research Methods For Business: A Skill Building
Yuliani, Kadek Puspa, Werastuti, Urged Nyoman Tri and Edy Sujana. 2015. Effects of Loan to Deposit Ratio (LDR), Non Performing Loan (NPL), Return On Assets (ROA) and Operational Costs on Operating Income (BOPO) on Capital Adequacy Ratio (CAR) (Study on National Private Commercial Banks (BUSN)) Foreign exchange). e-JournalAk S1, Ganesha University of Education, 3 (1).