The Effect of Capital Adequacy Ratio and Non Performing Loan on Banking Stock Prices with Profitability as Intervening Variable

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ABSTRACT: This study aims to determine the role of profitability in mediating the Capital Adequacy Ratio (CAR) and Non Performing Loans (NPL) on banking stock prices. The sample used was 4 companies listed on the Indonesia Stock Exchange in 2011-2018. Determination of the sample using purposive sampling method. The analysis used the sobel test to determine the indirect effect of variables and simple regression for direct analysis between variables. The results of the analysis show that the CAR variable has a positive effect on ROA, the NPL variable has a negative effect on the ROA variable. CAR variable has a positive effect on stock prices. NPL variable has a negative effect on stock prices. CAR variable has an influence on stock prices through ROA. And the NPL variable has an influence on stock prices through ROA.

KEYWORDS: capital adequacy ratio, non performing loan, profitability, stock price

I. INTRODUCTION

A bank is a financial institution that acts as an intermediary for channeling funds between parties with excess funds and parties who need funds. As an intermediary institution, banks play a role in raising funds and channeling them to the real sector in order to encourage economic growth. Thus, banks become institutions that influence the development of a country's economy. The condition of the banking world in Indonesia has undergone many changes from time to time. This change was caused by developments outside the world of banking, such as the real sector in the economy, social, politics, law and national defense.

The role of national banking in developing the economy is one of the sectors which is expected to play an active role in supporting national or regional development activities. This role is manifested in its main function as an intermediary between debtors and creditors. Thus, economic actors need funds to support their activities to be fulfilled and then move the economy.

It is important to maintain public trust in banks, therefore Bank Indonesia applies regulations on bank soundness. Where is the definition of bank soundness according to Bank Indonesia regulation no. 6/10 / PBI / 2004 as follows: "The soundness of a bank is the result of a qualitative assessment of various aspects that affect the condition / performance of a bank through quantitative and / or qualitative assessments of the factors of capital, asset quality, management, profitability, liquidity, and sensitivity to market risk."

In creating and maintaining sound banking, banking institutions are needed which can foster and supervise these banks effectively. The soundness of the bank reflects the condition of the bank at present and in the future. We can analyze the soundness of a bank or the performance of a bank through financial reports, namely with the aim of financial reporting to provide information for users of financial statements for decision making.

Based on Bank Indonesia regulation Number: 3/22 / PBI / 2001 concerning Transparency of Bank Financial Conditions, Banks are required to prepare and present financial reports in the form and scope as stipulated in this Bank Indonesia regulation, which consists of annual reports, quarterly published financial reports, monthly financial publications; and consolidated financial reports.

The financial statements reflect the actual performance of the bank. From this fundamental financial statement information, a bank has achieved good or bad efficiency in managing existing funding sources. By having a good performance, the investor community will invest in the bank’s stocks. This shows the public’s trust that the bank can meet its expectations. A bank that receives funds from the public states that the bank has the responsibility to manage assets and sources of funds that have it professionally.
Firm value is the investor's perception of the company which is often associated with stock prices (Shayadatina, 2015). Sitorus & Elinarty (2017) explained that the company value is the price of a stock that has been circulating in the stock market that must be paid by investors to own a company. The reason this research uses the stock price variable, because stocks are proof of owning a company in which the owners are called shareholders. With the existence of stocks in a bank, the attractiveness of stocks offered is varied compared to other investment products in the form of financial assets. The capital market is a means of funding for companies and institutions for investment activities. The capital market is one of the targets for banks to obtain funds from the public needed for their business activities (Yao & Tariq, 2018). This capital market will attract investors to invest there, banks must be able to offer stocks that have provided higher profits compared to other companies in the banking sector which are competitors between banking companies. One important thing for investors / shareholders when investing in the company's stock instruments is that they will definitely expect the highest return. With more and more enthusiasts to invest in banks, the higher the stock price. This shows that the company is able to provide large dividends for investors. In determining the stock price given to the market, it is influenced by the condition variables of similar companies.

Investors assess the company's work by looking at the company's ability to manage its resources so that it becomes an advantage. Therefore, if it is seen from its good financial performance, investors will invest in the company with the belief that it will benefit from the investment. Assessment of the company's financial performance which is used to measure the level of the company's ability to generate returns from existing investments is called the profitability ratio (Islam & Rana, 2017). Profitability is one of the most important goals of a commercial company so that a company aims to earn profits during the performance of their activities. Just like other commercial companies, banks operate to benefit the banking sector however, having certain distinctive characteristics contributes a lot to the economy (Hossain & Hossain, 2015). The level of profitability in fundamental analysis can be measured using several aspects, namely ROE (Return On Equity), ROA (Return On Asset), ROS (Return On Sales), EPS (Earning Per Share).

Profitability is the company's ability to earn profit during a certain period. Several studies have shown that financial ratios are proven to play a role in evaluating bank performance, including the risks that accompany bank business activities (Nisar et al., 2018). Profit in several studies is generally proxied by using the financial ratio Return on Assets (ROA). Analysis of the financial statements is carried out to determine the level of profitability, level of risk and level of soundness of the bank (Capriani & Dana, 2016). Sambul (2016) which states that the projected profitability using ROA has a positive effect on bank stock prices. The high ROA indicates that the level of profit in bank management is increasing or better in the position of the bank in terms of asset use. In other words, according to BI Circular No. 6/23 / DPNP dated May 31, 2004, ROA is used to measure the ability of a bank to use its assets to generate gross profit, the higher the ROA value, the better the bank's ability or performance.

Capital Adequacy Ratio (CAR), Non Performing Loan (NPL), and Loan to Deposits Ratio (LDR), are ratios that are factors to measure profitability. The capital adequacy ratio, often referred to as the Capital Adequacy Ratio (CAR), reflects the bank's ability to cover the risk of loss from its activities and the bank's ability to fund its operational activities. In accordance with Bank Indonesia regulation No. 10 / 15 / PBI / 2008, the minimum capital that a bank must have is 8%. A bank that has sufficient capital can translate into higher profitability. This means that the higher the capital invested in the bank, the higher the profitability of the bank. Fordian (2017) shows that CAR has no effect on stock prices. Meanwhile, Lilis (2016) shows that CAR has an effect on banking stock prices.

Non-Performing Loans (NPLs) are loans that experience repayment difficulties or are often referred to as bad loan at banks. NPL affects bank lending where there are loans that have bad loan quality which is often referred to as non-performing loans. If there is a problem with non-performing loans, it will indirectly be detrimental to the people who own the funds. The provision of a loan facility carries a risk of default, as a result, loan cannot be collected, resulting in losses that must be borne by the Bank. Sambul (2016) shows that NPL has no effect on bank stock prices. Meanwhile, Buchory (2020) shows that NPL has a significant effect on stock prices. Indrayani & Yudiaatmaja (2016) which state that ROA is able to mediate CAR and NPL against banking stock prices. Meanwhile, Sepdiana (2017) stated that ROA is insignificant or does not mediate CAR and NPL on banking stock prices.

II. HYPOTHESIS DEVELOPMENT

Capital adequacy ratio or CAR, which is the amount of own capital needed to cover the risk of loss arising from the investment of risky assets and to finance all fixed assets and bank inventory. All banks in Indonesia are required to provide a minimum capital of 8% of the RWA. The greater the CAR, the greater the bank's profits. In other words, the smaller the risk of a bank, the greater the profit the bank gets. CAR is the ratio of bank performance to measure the adequacy of the bank's capital to support assets that contain or generate risk, for example, loans. CAR shows to what extent the decline in bank assets that can still be covered by the available equity of the bank, the higher the CAR, the better the condition of the bank. The amount of CAR
indirectly affects ROA because profit is a component of the ROA ratio. Thus, the bigger the CAR, the bigger the ROA of the bank. Putri & Dewi (2017), Yüksel et al. (2018), Khan et al. (2020), Alshatti (2015), Q. M. Khan et al. (2015) state that CAR has a positive effect on ROA.

**H1: CAR has a positive and significant effect on bank profitability**

Loan risk is the risk faced by banks because they channel their funds in the form of loans to the public. There are various reasons that make debtors not fulfill their obligations to the bank. Accounts receivable management is very important for companies whose operations provide loan, because the bigger the receivables the greater the risk. If a bank is in high NPL conditions, it will increase other costs, thus potentially causing bank losses. The NPL ratio shows the ability of bank management to manage non-performing loans provided by banks. The higher the NPL ratio, the worse the quality of loan, which causes the number of non-performing loans to increase, which can increase the likelihood of a bank being in trouble. So in this case the higher the NPL ratio, the lower the profitability of a bank. The greater the NPL, the lower the ROA which also means the bank's financial performance decreases. Vice versa, if NPL falls, ROA will increase and bank financial performance can be done better. This statement is also supported by Alshebmi et al. (2020), Stephen Kingu et al. (2018)

**H2: NPL has a negative and significant effect on Banking Profitability**

Capital Adequacy Ratio (CAR) is the capacity of capital, which is an important factor for banks in the context of business development and accommodating losses. In order to be able to develop and compete, capital is adjusted to the international standard known as BIS. Based on the provisions of the CAR of banks in Indonesia at 8%. Bank capital is part of bank activities. If the machine capacity is limited, it will be difficult for banks to increase the capacity of their business activities specifically in lending. CAR below 8 percent does not have the opportunity to provide loan, even though the main activity of a bank is to collect funds and channel it back in the form of loan. By using a sufficient CAR ratio the bank will be able to operate so that it will create profit in a bank. With the higher the CAR, the better the performance of a bank. Optimal lending, assuming there is no default, will increase profits which in turn will increase stock prices. With the amount of capital of a bank, it will affect the level of public confidence in bank performance, therefore CAR will have a positive effect on stock prices. This statement is supported by Lilis (2016), Soetedjo & Elan (2019), Riyani et al. (2019)

**H3: CAR has a positive and significant effect on stock prices**

Non Performing Loans (NPLs) are the level of non-performing loans compared to total loans granted to third parties but do not include loans extended to other banks. Non-performing loans are loans classified as substandard, doubtful, and loss, while non-performing loans themselves are calculated on a gross basis, not deducting the allowance for earning assets losses. A bank can run its operations well if the NPL is below 5%. With the increase in NPL, it will cause the allowance for possible losses on earning assets that are not covered, so that the loan breakdown must be calculated as a cost burden which directly affects bank profits. Loan given to the public as a form of service product offered by the banking industry, the higher the level of non-performing loans, the risk borne by the bank indicates that the banking performance is not good. This will affect the decision of investors to invest and be able to influence stock prices, so the NPL affects stock prices. This statement is also supported by Buchory (2020)

**H4: NPL (Non Performing Loan) has a negative and significant effect on stock prices**

Assessment of the company's financial performance which is used to measure the level of the company's ability to generate returns from existing investments is called the profitability ratio. The level of profitability in fundamental analysis can be measured using several aspects, including ROE (Return on Equity), ROA (Return On Asset), ROS (Return on Sales), EPS (Earning Per Share). In this study using ROA (Return On Asset) as a projection of profitability to stock prices. If a company has a high ROA, the company is able to generate high profits, with high profits, the higher the amount of dividends that will be distributed to investors. This condition is what affects the public to own the company's stocks. In addition, it can also be seen that in addition to obtaining profits from capital gains, investors also pay attention to the level of achievement of bank profitability by looking at the size of the Return On Assets ratio to decide on investing in stocks. Therefore, the effect of profitability projected by ROA (Return on Assets) has a positive effect on bank stock prices. This statement is also supported by Watung & Ilat (2016); Purnamawati (2016); Alifah (2017); Sambul (2016)

**H5: ROA (Return On Asset) has a positive and significant effect on Stock Prices through Profitability**

Loans provided to the public as a form of service product offered by the banking industry, the higher the level of non-performing loans, the risk borne by the bank indicates that the banking performance is not. This will affect the decision of investors to invest and be able to influence stock prices, so the NPL affects stock prices. If the ROA of a bank is good, it can increase investor confidence in investing because it is seen from the ability of a good company to increase the company's stock price. This statement is supported by Putri & Dewi (2017). In addition, CAR also has a positive effect on banking stock prices, supported by Lilis (2016); Non Performing Loan (NPL) has a significant effect on ROA supported by Indrayani & Yudiaatmaja (2016). Non Performing Loan (NPL) also has a significant effect on stock prices, supported by research by Buchory (2020)

**H6: NPL has a positive and significant effect on bank stock prices through profitability**
III. METHODS

Observations in this study were carried out at state-owned banks listed on the IDX, which published financial report data for the 2011-2018 period. The population used in this research is banking companies that have been listed on the IDX for the 2011-2018 period, namely 44 listed companies. The sample of this study was selected using purposive sampling method, namely to select members of the sample specifically based on the research objectives and the criteria set by the researcher. The criteria for sampling in this study were state-owned bank companies listed on the Indonesia Stock Exchange in 2011-2018, state-owned bank companies listed on the Indonesia Stock Exchange that issued financial reports during the 2011-2018 period, availability of financial report data for the 2011-2018 period. The data analysis technique used in this research is path analysis. Before testing the classical assumptions. Testing the mediation hypothesis can be done by using the Sobel Test. Sobel test is done by testing the strength of the indirect effect of CAR (X1) and NPL (X2) on Stock Prices (Y2) through ROA (Y1).

IV. RESULTS AND DISCUSSION

Based on the descriptive test results, it is known that CAR has a mean value of 0.230086, a variance value of 0.001, a standard deviation of 0.300672, a minimum value of 0.1786 and a maximum value of 2.883. NPL has a mean value of 188.9688, a variance value of 1.3352.805, a standard deviation of 1.15.5543, a minimum value of 0.000, which is smaller than the significance value of 0.05. The t value of the CAR variable is 2.459, which is greater than the t value of 1.996. This shows that the CAR variable has a significant effect on stock prices. Based on the simple regression test table, it is known that the significance value of the NPL variable is 0.049, which is smaller than the significance level of 0.05. ROA regression coefficient value of 0.936 shows that there is a positive influence on the stock price variable with a significance level of 0.000 which is smaller than 0.05. The NPL regression coefficient value of -0.108 shows that there is a negative effect on ROA with a significant level of 0.000 which is smaller than 0.05.

Table 1. Partial Test Results I

<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>0.024</td>
<td>0.024</td>
<td>1.998</td>
<td>0.033</td>
</tr>
<tr>
<td>CAR</td>
<td>0.451</td>
<td>0.105</td>
<td>2.122</td>
<td>2.807</td>
</tr>
<tr>
<td>NPL</td>
<td>-0.108</td>
<td>0.000</td>
<td>2.594</td>
<td>2.936</td>
</tr>
</tbody>
</table>

Source: Data processed, 2020

The CAR regression coefficient value of 0.451 shows that there is a positive effect on ROA with a significant level of 0.043 is smaller than 0.05. The NPL regression coefficient value of -0.108 shows that there is a negative effect on ROA with a significant level of 0.000 which is smaller than 0.05.

Table 2. Partial Test Results II

<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>7.874</td>
<td>4276.02</td>
<td>1.996</td>
<td>.011</td>
</tr>
<tr>
<td>CAR</td>
<td>57.862</td>
<td>18404.295</td>
<td>2.471</td>
<td>2.006</td>
</tr>
<tr>
<td>NPL</td>
<td>-2.691</td>
<td>5.866</td>
<td>2.089</td>
<td>2.459</td>
</tr>
<tr>
<td>ROA</td>
<td>68.311</td>
<td>32181.238</td>
<td>2.251</td>
<td>2.330</td>
</tr>
</tbody>
</table>

Source: Data processed, 2020

The CAR regression coefficient value of 57.862 shows that there is a positive influence on the variable stock price with a significance value of 0.006 which is smaller than the significance level of 0.05. The NPL regression coefficient value of -2.691 indicates that the negative influence on the stock price variable with a significance value of 0.049 is smaller than the significance level of 0.05. ROA regression coefficient value of 68.311 shows that there is a positive influence on the stock price variable with a significance value of 0.002 which is smaller than the significance level of 0.05. Based on the results of the correlation coefficient test, the R Square value shows 0.319 or 31.9%. This means that the influence of the independent variable on the dependent variable is 31.9% and the remaining 68.1% is influenced by other factors outside the research variables.

The CAR significance value of 0.043 is smaller than the significance value of 0.05. The t value is known to be 1.998, greater than the t table value of 1.996. This shows that CAR has a significant effect on ROA. The significance value of the NPL variable is 0.006, which is smaller than the significance value of 0.05. The t value is known to be 2.594, which is greater than the t table value of 1.996. This shows that the NPL variable has a significant effect on stock prices. Based on the simple regression test, it is known that the significance value of the NPL variable is 0.049, which is smaller than the significance value of 0.05. The t value is known to be 2.459, which is greater than the t table value of 1.996. This shows that the NPL variable has a significant effect on stock prices. Based on the
simple regression test table, it is known that the significance value of the ROA variable is 0.002 smaller than the significance value of 0.05. The t value is known to be 2.330 greater than the t table value of 1.996. This shows that the ROA variable has a significant effect on stock prices.

Based on the significant results of the CAR and NPL variables, it is known that the CAR variable has a significant value of 0.043 which is smaller than the value of 0.005. The NPL variable has a significant value of 0.000 which is smaller than 0.005, this means that the CAR and NPL variables have an influence on ROA. The value of R Square, the effect of the CAR and NPL variables on ROA is 0.350, CAR and NPL can explain the ROA variable by 35.0% while 65.0% is influenced by other factors outside the variable. The results of the R Square correlation coefficient of 0.319, CAR, NPL and ROA can explain the stock price variable of 31.9% while 68.1% is influenced by other factors outside the variable.

Based on the results of the path analysis for the fifth hypothesis to determine the indirect effect of the CAR variable on stock prices through ROA, multiplication of P1 and P2 is carried out where the value is calculated as $2.471 \times 2.251 = 5.562 > 1.96$, the indirect effect of CAR on stock prices through ROA is 5,562. this result means that indirectly, through ROA, CAR has an effect on stock prices.

Based on the results of the path analysis for the sixth hypothesis, to determine the indirect effect of the NPL variable on stock prices through ROA, the multiplication of P1 and P2 is carried out where the value is calculated as $2.089 \times 2.251 = 6.323 < 1.96$, the indirect effect of NPL on stock prices through ROA is 6,323. this result means that indirectly NPL through ROA has an effect on stock prices.

The regression test results show that the significance value of the CAR variable is 0.043, which is smaller than the significance value of 0.05. The t value is known to be 1.998, greater than the t table value of 1.996. This shows that the CAR variable has a significant effect on ROA. The CAR regression coefficient value of 0.451 shows that it has a positive effect on the ROA variable. The amount of CAR indirectly affects ROA because profit is a component of the ROA ratio, the greater the CAR will affect the greater the ROA of the bank so that the hypothesis can be formulated that CAR has a positive effect on ROA.

The significance value of the NPL variable is 0.000, which is smaller than the significance value of 0.05. The t value is known to be 2.936, which is greater than the t table value of 1.996. This shows that the NPL variable has a significant effect on ROA. The NPL regression coefficient value of -0.108 indicates that it has a negative effect on the ROA variable. If a bank is in high NPL conditions, it will increase other costs, thus potentially causing bank losses. The NPL ratio shows the ability of bank management to manage non-performing loans provided by banks. The higher the NPL ratio, the worse the quality of loan, which causes the number of non-performing loans to increase, which can increase the likelihood of a bank being in trouble. So in this case the higher the NPL ratio, the lower the profitability of a bank. The greater the NPL, the lower the ROA which also means the bank's financial performance decreases. Likewise, vice versa, if the NPL decreases, the ROA will increase and the bank's financial performance can be done better. The significance value of the CAR variable is 0.006 smaller than the significance value of 0.05. The t value is known to be 2.006, greater than the t value of 1.996. This shows that the CAR variable has a significant effect on stock prices. The CAR regression coefficient value of 57.862 shows that it has a positive effect on the variable stock price. By using a sufficient CAR ratio the bank will be able to operate so that it will create profit in a bank. With the higher the CAR, the better the performance of a bank. Optimal lending, assuming there is no default, will increase profits which in turn will increase stock prices. With the amount of capital of a bank, it will affect the level of public confidence in bank performance, therefore CAR will have a positive effect on stock prices.

The significance value of the NPL variable is 0.049 which is smaller than the significance value of 0.05. The t value is known to be 2.459, which is greater than the t value of 1.996, which indicates that the NPL variable has a significant effect on the stock price. The NPL regression coefficient value of -2.691 indicates that it has a negative effect on the stock price variable. A bank can run its operations well if the NPL is below 5 percent. With the increase in NPL, it will cause the allowance for possible losses on earning assets that are not covered, so that the loan breakdown must be calculated as a cost burden which directly affects bank profits. Loan given to the public as a form of service product offered by the banking industry, the higher the level of non-performing loans, the risk borne by the bank indicates that the banking performance is not good. This will affect the decision of investors to invest and be able to influence stock prices, so the NPL affects stock prices.

The result “of the multiplication of P1 and P2 where the value is the calculation of $2.471 \times 2.251 = 5.562 > 1.96$. Based on these results it can be concluded that the indirect effect of CAR on stock prices through ROA is 5,562, this result means that indirectly CAR through ROA affects stock prices. If a company has a high ROA, the company is able to generate high profits, with high profits, the higher the amount of dividends that will be distributed to investors. This condition is what attracts the public to own the company's stocks. In addition, it can also be seen that in addition to obtaining profits from capital gains, investors also pay attention to the level of achievement of bank profitability by looking at the size of the Return On Assets ratio to decide on investing in stocks. Therefore, the effect of profitability projected by ROA has a positive effect on bank stock prices.”
The calculation value for the fourth hypothesis is $2.089 \times 2.251 = 6.323 < 1.96$. Based on these results it can be concluded that the indirect effect of NPL on stock prices through ROA is 6.323, this means that indirectly NPL through ROA affects stock prices. Loan given to the public as a form of service product offered by the banking industry, the higher the level of non-performing loans, the risk borne by the bank indicates that the banking performance is not good. This will affect the decision of investors to invest and be able to influence stock prices, so the NPL affects stock prices. If the ROA of a bank is good, it can increase investors’ confidence to invest because it is seen from the ability of a good company to increase the company's stock price.

V. CONCLUSION

CAR has a significant effect on ROA, the higher the CAR will affect the greater the ROA at the bank. The value of the NPL coefficient decreases which will lead to an increase in ROA and financial performance at the bank. The CAR ratio will have the potential to generate profits in a bank and a high CAR will increase the performance of a bank which will ultimately increase public confidence in the bank's performance. The effect of NPL on stock prices shows that the direction of the negative influence on the stock price variable, the NPL ratio has a value below 5%, which means that the bank is running its operations well. This is what influences investors to invest and is able to influence stock prices. CAR through ROA has an effect on stock prices. A high ROA value can also increase high profits at the bank. This also affects the attractiveness of investing in the company. NPL indirectly affects ROA and causes an increase in investor confidence to invest, because it is seen from the ROA in the company. The effect of CAR on stock prices, which shows that the profitability variable increases the influence of CAR on stock prices. This shows that a company has a high ROA, so the company is able to generate high profits too.

REFERENCES


