THE EFFECTS OF RISK-BASED BANK RATING ON STOCK RETURN: EVIDENCE OF BUKU II BANKS IN INDONESIA

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ABSTRACT

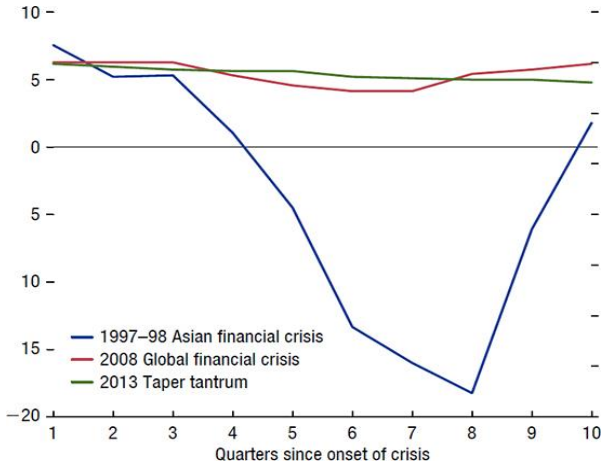
As a financial service institution, banks play a significant role in sustaining and developing the country's economy. Moreover, the monetary crisis in 1998 and the global crisis in 2008 caused the banking industry to experience a decline in performance. Bank Indonesia, as the central bank, issued Bank Indonesia Regulation Number 13/1/PBI/2011 as the basis so that banks can assess their level of soundness using a risk-based approach both individually and on a consolidated basis. Therefore, banks are required to maintain and improve their level of soundness by implementing principles of prudence and risk management in carrying out business activities. The purpose of this study is to determine the relationship between the soundness of the bank by looking at the risk profile, income, and capital called the RBBR method, whether it was affecting stock returns in BUKU II banks. This research was conducted by taking data from the annual reports of BUKU II banks and annual stock returns from 2016 to 2020 using a multiple regression model, which was tested by statistical hypothesis testing. The results show that the NPL, LDR, ROA, and NIM in the RBBR method, it does not have a significant effect on stock returns, while CAR has a significant effect on stock returns. This result gives an understanding to the BUKU II banks that investors do not use the NPL, LDR, ROA, and NIM ratios as the basis for market sentiment to invest in BUKU II banks in this study, while the CAR ratio affects the market sentiment.

Keywords: RBBR, BUKU II, Risk Profile, Earnings, Capital, Stock Return

INTRODUCTION

Banking is a financial institution that functions as an intermediary institution that collects funds from the community and flows it back to the community. As financial institutions, banks deal with debits and credits. Nowadays, technology is rapidly evolving. Thus, illiteracy and unawareness of technology usage could affect the lag of the economy's growth and the development of the country's economy. Mala and Vasanthi (2016) stated that, with the inception of globalization, the banking sector has enhanced its services in response to the increase in competitive pressure and demand for economic growth, hence innovation is utterly necessary (Fuertes-Callén, 2019). In Indonesia, the banking sector experiences various fluctuations from time to time. Drastic changes in Indonesian banking began with the banking deregulation 1 June 1983 Package and 27 October 1988 Package (Permono, 1989). The essence of banking deregulation was the liberalization of Indonesian banking, which was later marked by the establishment of new banks. Deregulation and the implementation of other policies in Indonesia from 1983 until the economic and monetary crisis in 1997 related to the monetary and real sectors have caused the banking sector to have the ability to improve macroeconomic performance in Indonesia and plummeted GDP which is depicted in figure 1.

Figure 1. Indonesia GDP Growth Quarterly 1998



Fund mobilization through banking escalated, and banks' role became greater in supporting the real sector by increasing the production of goods and services. After the deregulation period, the rapid development of banking did not last long enough to raise Indonesia's welfare level to be on par with other countries in Southeast Asia (Breuer, et al., 2018). The global financial crisis that occurred in the past years has taught a valuable lesson that innovations in banking products, services, and activities that are not matched by the implementation of adequate risk management can cause various fundamental problems for banks and the financial system. Hence, it is essential for the company to use a financial analysis tool that expresses the company's financial state through its financial performance to know whether the company's financial condition is healthy or not.

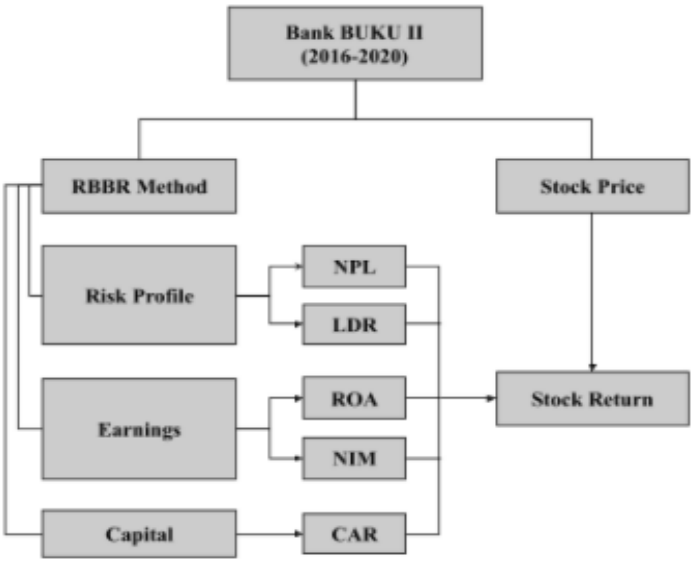
According to Otoritas Jasa Keuangan, quoted by Hutahuruk (2021), there are 27 banks categorized in BUKU II with a total core capital of more than 30 trillion rupiahs. This shows that the BUKU II banks in Indonesia also play an important role in expanding Indonesia's economy which is the reason why BUKU II banks in Indonesia were chosen. Later, the good performance of BUKU II banks is expected to level up to be in the BUKU III category. In the past, the central bank of Indonesia, Bank Indonesia, imposed a policy under the CAMELS ratio based on Bank Indonesia Regulation No. 6/10/2004 concerning the Rating of Health Level of Commercial Banks. Afterward, this policy later was replaced using an updated approach to examine bank soundness by utilizing risk approaches named Risk-Based Bank Rating (RBBR) is issued by the Bank Indonesia and the Financial Services Authority (OJK) under regulation No. 13/1/PBI/2011, followed by the Circular Letter of the OJK in SE OJK No. 14/SEOJK. 03/2017. The criteria for a bank's soundness level can be seen from various assessments such as very healthy, healthy, fairly healthy, less healthy, or unhealthy.

METHODOLOGY

This study is categorized as causal research. Causative research examines causal relationships that involve one or more independent variables as hypothesized causes and their significance to a dependent variable (Oppewal, 2010). In addition, numerical data is collected from the calculation to do this causative research with a representative sample to see the connection of the research objectives. The study is also using purposive sampling, which is a sort of non-probability sampling that is best effective when data is collected based on certain criteria and considerations. Both qualitative and quantitative research methodologies can benefit from targeted sampling. Purposive sampling is used to better match the sample to the research's goals and objectives, hence boosting the study's rigor and the data and results' credibility (Campbell et al., 2020). In addition, a descriptive ratio is used to assess the soundness level of the banks, derived from its annual report.

The focus of this study will only analyze the banks of the BUKU II category, which by 2020 owned IDR 1 - 5 trillion of core capital listed on the Indonesia stock exchange while using the financial performance that was retrieved from each company's annual report. Purposive sampling was conducted to select suitable companies. The sampling criteria were as follows; the selected companies should be listed on the Indonesia Stock Exchange at least by late 2015, and the variables that will be used in this research are the Non-Performing Loan (NPL), Loan to Deposit Ratio (LDR), Net Interest Margin (NIM), Return on Assets (ROA), Capital Adequacy Ratio (CAR) as independent variables, and its relationship with the stock return as a dependent variable.

Figure 2. Conceptual Framework



LITERATURE REVIEW

RISK-BASED BANK RATING (RBBR)

The primary purpose of bank supervision is to monitor and check compliance with applicable banking regulations. In addition, it is also used to measure the performance and soundness of the bank. Bank soundness level is carried out to see the ability of a bank in its operational activities properly and in fulfilling all obligations properly in accordance with banking laws. The central bank of Indonesia issued Bank Indonesia Regulation No.13/1/PBI/2011 regarding the soundness of banks as measured by the Risk-Based Bank Rating (RBBR) method. According to the regulation, the banks' performance must be evaluated using a risk approach, or RBBR, and the results are reflected in four categories: risk profile (NPL and LDR), Good Corporate Governance, earnings (ROA and NIM), and capital (CAR). Good Corporate Governance will be omitted since only quantitative analysis will be conducted.

NON-PERFORMING LOAN

This study analyzes credit risk, which can be measured using the Non-Performing Loan (NPL) ratio, and exhibits the risk faced by the bank. The risk is caused by the debtors failing to fulfill their obligations to the bank. Non-performing loans can be categorized as substandard, doubtful, and loss. The ratio itself is a comparison between non-performing loans and total loans. This situation shows that lower NPL contributes to a lower credit risk borne by the bank. The NPL ratio also portrays the relationship with bank profitability. If the NPL ratio increases, the higher potential number of uncollected loans results in a loss for the bank. Table 1 shows the NPL parameter criteria. Therefore, Bank Indonesia released its regulation through Circular Letter of Bank Indonesia No. 13/30/DPNP, stating that a healthy bank's maximum non-performing loan ratio is 5% from total loans given.

Table 1. NPL Parameter Criteria

Criteria	Rating
NPL <2%	Very Healthy
2%<= NPL < 5%	Healthy
5% <= NPL < 8%	Quite Healthy
8% <= NPL < 12%	Less Healthy
NPL >= 12%	Unhealthy

NPL formula:

$$Non\ Performing\ Loan = \frac{Total\ Non\ Performing\ Loan}{Total\ Loan}$$

LOAN DEPOSIT RATIO

This research uses a Loan to Deposit Ratio (LDR) to measure liquidity risk. Liquidity risk is when the bank cannot meet their payment obligations as they fall due, including the withdrawal of customer deposits. In their study, Achsani et al. (2021) stated that the possible loss caused by the bank's inability to fulfill its responsibilities or fund the increase in assets could also be defined as liquidity risk which reflects the bank's ability to fulfill deposit withdrawals and other liabilities. When assessing liquidity risk, it cannot be detached from the role of bank liquidity itself. In the liquidity of a bank, the relationship between bank liquidity risk and profitability is inversely proportional (Van Horne & Wachowiz, 2022). Therefore, it can be said that high bank liquidity will yield low profits. On the other hand, when the level of liquidity is low, it means the bank will produce high profits. Based on the formula, the higher this ratio signifies the bank is aggressive in channeling its credit funds, while the smaller this ratio means, the more significant the third-party funds that are not used for lending (Taswan, 2010). Table 2 exhibits the LDR parameter criteria. If the LDR ratio is <= 75%, it is said to be very healthy.

Table 2. LDR Parameter Criteria

Criteria	Rating
LDR <= 75%	Very Healthy
75% < LDR <= 85%	Healthy
85% < LDR <= 100%	Quite Healthy
100% < LDR <= 120%	Less Healthy
LDR > 120%	Unhealthy

LDR formula:

$$Loan\ Deposit\ Ration = \frac{Total\ Loans}{Total\ Party\ Funds}$$

EARNINGS

The profitability factors assessment contains earnings performance, sources of profitability, the sustainability of profitability, and management of earnings (Fannywaty & Daryanto, 2019). Also Hakim et al. (2018) stated that the assessment is accomplished by evaluating the level, trend, structure, stability of bank profitability, and comparison of bank performance through quantitative and qualitative analysis. Therefore, earning performance can be measured with profitability ratio, which is a way of measurement analysis in evaluating the company's ability to be able to yield profits by using the resources owned by the company. Looking at

profitability ratios can also equip an overview of the company's management performance in handling the company and how competitive the position of the company in the market.

RETURN ON ASSET

In assessing the earning performance, this study utilizes the Return on Asset (ROA) ratio, which is able to assess the company's ability in terms of obtaining profit from the assets used. In their study, Brillianti & Daryanto. (2021) stated that if the investment in the business contains existing liabilities, long-term liabilities, and owner's equity, which are the integrated sources of funds collected in the assets, the ROA calculation is appropriate. The higher the ROA conveys the better utilization of the company's assets to earn revenue. Table 3 depicts the ROA parameter criteria. If the bank ratio is >1.5%, it is said to be very healthy.

Table 3. ROA Parameter Criteria

Criteria	Rating
ROA > 1.5%	Very Healthy
1.25% < ROA <= 1.5%	Healthy
0.5% < ROA <= 1.25%	Quite Healthy
0% < ROA <= 0.05%	Less Healthy
ROA > 0%	Unhealthy

ROA formula:

$$Return\ On\ Asset\ = \frac{Earning\ Before\ Taxes}{Total\ Asset}$$

NET INTEREST MARGIN

Other than ROA, earnings performance is also represented by Net Interest Margin (NIM). It is one of the critical actions that banks must conduct in order to assess the company's performance. NIM is a calculation of the difference between the interest income yielded by banks or other financial institutions and the amount of interest paid out to the lenders relative to the amount of their productive assets. Therefore, NIM is calculated from the difference between total loan interest and total deposit interest compared to the total earning assets of the bank (Tarus et al., 2012). Table 4 depicts the NIM parameter criteria.

Table 4 NIM Parameter Criteria

Criteria	Rating
NIM > 3%	Very Healthy
2% < NIM <= 3%	Healthy
1.5% < NIM <= 3%	Quite Healthy
1% < NIM <= 1.5%	Less Healthy
NIM <= 1%	Unhealthy

NIM formula:

$$Net\ Interest\ Margin = \frac{Net\ Interest\ Income}{Productive\ Asset}$$

CAPITAL ADEQUACY RATIO

Capitalization is one of the essential factors for banks to expand their business and accommodate the risk of loss. It is also part of the banks' funding sources, which can be used to raise another fund, bank capital, as a protection to absorb shocks from loss of business (Van Greuning, 2011). According to Saunders & Cornett (2006), capital has functions to absorb unexpected losses with sufficient margin to encourage confidence and allow financial intermediaries to persist and cover uninsured depositors, bondholders, and creditors in the event of a bankruptcy and liquidation. Therefore, the Capital Adequacy Ratio (CAR) determined by Bank Indonesia is used to conduct a capital assessment as shown in table 5. CAR can be helpful to acclimate the risk of loss that the bank may face. The higher the CAR reflects the bank's ability to be better.

Table 5. CAR Parameter Criteria

Criteria	Rating
CAR >= 12%	Very Healthy
9% <= CAR < 12%	Healthy
8% <= CAR < 9%	Quite Healthy
6% <= CAR < 0.05%	Less Healthy
CAR <= 6%	Unhealthy

CAR formula:

$$Capital\ Adequacy\ Ratio = \frac{Tier\ 1\ Capial + Tier\ 2\ Capital}{Risk\ Weight\ Exposure}$$

STOCK RETURN

The return can be simply defined as the amount of money gained or lost on an investment. The motive of investors to invest in the stock market is to get the return in the form of dividends or capital gain as well as company ownership. Thus, these returns from investing are critical for investors since it is their objective to maximize expected returns and wealth. According to Jones (2016), investors must calculate the stock return in order to reckon how well they have performed or how well investment managers have performed on their behalf.
Stock Return Formula:

$$Stock\ Return = \frac{Stock\ Price(t) - Stock\ Price\ (t-1)}{Stock\ Price\ (t-1)}$$

(Source: Daryanto, 2022)

PREVIOUS STUDIES

In conducting this study, there are some related previous studies presented to give other perspectives. In Indonesia, RBBR is used to measure the soundness of the bank. Fannywaty & Daryanto (2019) used RBBR method to indicate a particular listed bank should reduce its non-performing loan by strengthening credit analysis and centralized collection unit. Meanwhile, another method, CAMEL, was created in 1979 in the USA by the bank regulatory agencies. Syafril & Daryanto (2019) analyzed the financial soundness of the two largest sharia banks in Indonesia using CAMEL (capital adequacy, asset quality, management competence, earnings, and liquidity) method and indicated that the banks were underperforming compared to two largest conventional banks. Similar study done by Daryanto (2022) also shows that the effect of RBBR in BUKU IV banks in Indonesia was that NPL, LDR, ROA had positive effects while the NIM and CAR did not.

In addition, another study of assessing NPL conducted by Sumantri et al., (2010) using 68 registered banks in Bank Indonesia Directory from 2000 until 2005 proved that the ratio of NPL did not affect bank insolvency. With LDR, research by Hidayati (2015) demonstrated that LDR had significant influences on the probability of banks' financial distress. Kusmayadi (2012) showed that good corporate governance positively and significantly affected banks' performance. On the other hand, Baklouti et al. (2016) found that good corporate governance did not have an impact on the banks' financial struggles. Amini (2019) found that the independent variable ROA has a significant effect on stock price movements as the dependent variable that shapes the banking NIM in Indonesia. Subsequently, Djuniardi (2021) in his research on NIM showed that cost-to-income ratio, bank size, and economic growth were significant to NIM. Lastly, Warsiati (2019) found a significant influence between CAR and stock prices.

HYPOTHESIS FORMULATION

Hypothesis testing is the technique used to measure the evidence from the sample and equips a framework for making decisions related to the data (Davis et al, 2006). The author composes a specific hypothesis, assesses data, and utilizes them to determine whether the specific hypothesis is accepted or not. Thus, it declares a logical relationship between two or more variables in formulating recommendations that can be empirically tested. The following are the hypothesis for this study:

- H1: Using the NPL, there is a negative effect on the stock returns
- H2: Using the LDR, there is a negative effect on the stock returns
- H3: Using the ROA, there is a positive effect on the stock returns
- H4: Using the NIM, there is a positive effect on the stock returns
- H5: Using the CAR, there is a positive effect on the stock returns

RESULT AND DISCUSSION

RISK PROFILE

Table 6. NPL Rating

Banks	2016	2017	2018	2019	2020	Average	Rating
BNBA	1.01%	0.85%	0.69%	0.70%	1.81%	1.01%	**Very Healthy**
BACA	2.94%	2.43%	2.50%	1.34%	0.00%	1.84%	**Very Healthy**
BINA	2.29%	2.48%	2.06%	3.10%	0.19%	2.02%	**Healthy**
BKSW	2.94%	1.14%	1.47%	4.45%	1.21%	2.24%	**Healthy**
AGRO	1.36%	1.31%	1.78%	4.86%	2.73%	2.41%	**Healthy**
BABP	2.38%	2.82%	3.43%	3.57%	3.63%	3.17%	**Healthy**
BVIC	2.37%	2.32%	1.90%	4.96%	4.91%	3.29%	**Healthy**
INPC	1.44%	4.30%	3.33%	4.25%	3.14%	3.29%	**Healthy**
BBYB	2.48%	2.07%	9.92%	1.63%	2.67%	3.75%	**Healthy**
AGRS	3.33%	4.96%	4.64%	4.89%	2.52%	4.07%	**Healthy**
All Banks	2.25%	2.47%	3.17%	3.38%	2.28%	2.71%	**Healthy**

Table 6 shows NPL ratios of listed BUKU II banks in Indonesia from 2016 to 2020. In addition, the remaining banks are also predicated healthy with an NPL ranging from 2.02% to 4.07% during 2016 to 2020. In 2018, BBYB experienced an unhealthy NPL of 9.92% because they experienced severe bad credits. In conclusion, all banks showed healthy performances of NPL in five years. All banks show an average of healthy NPL from 2016 to 2020. The NPL ratio reflects the risk banks exposed by having a ratio of bad credits toward the total loan deployed.

Table 7. LDR Rating

Banks	2016	2017	2018	2019	2020	Average	Rating
BACA	55.34%	50.61%	51.96%	60.55%	39.33%	51.56%	**Very Healthy**
BINA	76.30%	77.61%	69.28%	62.94%	41.43%	65.51%	**Very Healthy**
BVIC	68.38%	70.25%	73.61%	74.46%	75.64%	72.47%	**Very Healthy**
INPC	86.39%	82.89%	77.18%	68.29%	49.60%	72.87%	**Very Healthy**
BNBA	79.03%	82.10%	84.26%	87.08%	76.57%	81.81%	**Healthy**
BABP	77.20%	78.78%	88.64%	89.59%	77.32%	82.31%	**Healthy**
BKSW	94.54%	70.37%	72.59%	84.70%	97.02%	83.84%	**Healthy**
AGRO	88.25%	88.33%	86.75%	91.59%	84.76%	87.94%	Quite Healthy
AGRS	84.54%	84.46%	84.68%	85.38%	104.83%	88.78%	Quite Healthy
BBYB	95.47%	94.57%	107.66%	94.14%	92.95%	96.96%	Quite Healthy
All Banks	80.54%	78.00%	79.66%	79.87%	73.95%	78.40%	**Healthy**

Table 7 shows a Loan-to-Deposit Ratio (LDR) of publicly listed BUKU II banks in Indonesia for a five-year period from 2016 to 2020. From 2016 to 2020, BACA, BINA, BVIC, and INPC were categorized as very healthy according to risk-based bank ratio through Circular Letter of Bank Indonesia No. 13/24/DPNP 2011 standard with an average LDR of 51.56%, 65.51%, 72.47%, and 72.87% respectively, which are below 75%.

EARNINGS

Table 8. ROA Rating

Banks	2016	2017	2018	2019	2020	Average	Rating
BNBA	1.52%	1.73%	1.77%	0.96%	0.69%	1.33%	**Healthy**
AGRO	1.49%	1.45%	1.54%	0.31%	0.24%	1.01%	Quite Healthy
BACA	1.00%	0.79%	0.90%	0.44%	0.44%	0.65%	Quite Healthy
BINA	1.02%	0.82%	0.50%	0.23%	0.59%	0.63%	Quite Healthy
BBYB	2.53%	0.43%	-2.83%	0.37%	0.34%	0.17%	Less Healthy
INPC	0.35%	0.31%	0.27%	-0.30%	0.11%	0.15%	Less Healthy
BVIC	0.52%	0.64%	0.33%	-0.09%	-1.26%	0.03%	Less Healthy
BABP	0.11%	-7.47%	0.74%	0.27%	0.15%	-1.24%	Unhealthy
AGRS	0.15%	-0.20%	-0.77%	-3.87%	-1.75%	-1.29%	Unhealthy
BKSW	-3.34%	-3.72%	0.12%	0.02%	-1.24%	-1.63%	Unhealthy
All Banks	0.54%	-0.52%	0.26%	-0.20%	-0.17%	-0.02%	Unhealthy

Table 8 shows a Return On Assets (ROA) of publicly listed BUKU II banks in Indonesia for a five-year period from 2016 to 2020. From 2016 to 2020, BNBA was categorized as healthy according to risk-based bank ratio through Circular Letter of Bank Indonesia No. 13/24/DPNP 2011 standard with an average ROA 1.33% which is below 1.5%.

Table 9. NIM Rating

Banks	2016	2017	2018	2019	2020	Average	Rating
BNBA	1.52%	1.73%	1.77%	0.96%	0.69%	1.33%	**Healthy**
AGRO	1.49%	1.45%	1.54%	0.31%	0.24%	1.01%	Quite Healthy
BACA	1.00%	0.79%	0.90%	0.44%	0.44%	0.65%	Quite Healthy
BINA	1.02%	0.82%	0.50%	0.23%	0.59%	0.63%	Quite Healthy
BBYB	2.53%	0.43%	-2.83%	0.37%	0.34%	0.17%	Less Healthy
INPC	0.35%	0.31%	0.27%	-0.30%	0.11%	0.15%	Less Healthy
BVIC	0.52%	0.64%	0.33%	-0.09%	-1.26%	0.03%	Less Healthy
BABP	0.11%	-7.47%	0.74%	0.27%	0.15%	-1.24%	Unhealthy
AGRS	0.15%	-0.20%	-0.77%	-3.87%	-1.75%	-1.29%	Unhealthy
BKSW	-3.34%	-3.72%	0.12%	0.02%	-1.24%	-1.63%	Unhealthy
All Banks	0.54%	-0.52%	0.26%	-0.20%	-0.17%	-0.02%	Unhealthy

Table 9 shows a Net Interest Margin (NIM) of publicly listed BUKU II banks in Indonesia for a five-year period from 2016 to 2020 in an average of very healthy category. In 2016 to 2020, there were 8 banks categorized as very healthy according to risk-based bank ratio through Circular Letter of Bank Indonesia No. 13/24/DPNP 2011 namely, BBYB, INPC, BNBA, BINA, BABP, BACA, AGRO, and AGRS with average NIM of 5.74%, 4.59%, 4.37%, 4.26%, 3.72%, 3.48%, 3.40%, and 3.02% respectively which are above 3%. BKSW and BVIC are classified to be less healthy with an NIM average of 1.87% and 1.47% respectively. The NIM ratio shows how much interest the bank earns on loans against how much it pays out in interest on deposits.

CAPITAL

Table 10. CAR Rating

Banks	2016	2017	2018	2019	2020	Average	Rating
BINA	30.36%	66.43%	55.03%	37.41%	40.15%	45.88%	**Very Healthy**
AGRO	23.68%	29.58%	28.34%	24.28%	24.33%	26.04%	**Very Healthy**
BNBA	25.15%	25.67%	25.52%	23.55%	25.80%	25.14%	**Very Healthy**
BBYB	21.38%	18.18%	19.47%	29.35%	32.78%	24.23%	**Very Healthy**
AGRS	17.17%	18.64%	15.63%	28.46%	31.94%	22.37%	**Very Healthy**
BKSW	16.64%	20.27%	26.50%	21.08%	24.53%	21.80%	**Very Healthy**
BVIC	26.18%	18.76%	16.98%	17.29%	16.68%	19.18%	**Very Healthy**
INPC	20.12%	17.58%	19.94%	18.67%	16.66%	18.59%	**Very Healthy**
BACA	20.64%	22.56%	18.66%	12.67%	18.11%	18.53%	**Very Healthy**
BABP	19.54%	12.58%	16.27%	15.16%	15.75%	15.86%	**Very Healthy**
All Banks	22.09%	25.03%	24.23%	22.79%	24.67%	23.76%	**Very Healthy**

Table 10 shows a capital adequacy ratio (CAR) of publicly listed BUKU II banks in Indonesia for a five-year period from 2016 to 2020. From 2016 to 2020, all banks in this research considered as very healthy according to risk-based bank ratio through Circular Letter of Bank Indonesia No. 13/24/DPNP 2011 namely in terms of CAR with an average of 45.88%, 26.04%, 25.14%, 24.23%, 22.37%. 21.80%, 19.18%, 18.59%, 18.53%, and 15.86% which are above 12% of the standard. It indicated that the Banks could provide a considerable amount of capital to anticipate the risk. The average of CAR cumulatively from 2016 to 2020 shows a very healthy category from all banks.

CLASSICAL ASSUMPTION TEST ANALYSIS

In conducting the regression model, therefore it is obligatory to meet the classical assumptions in order to use multiple linear regression analysis. Several classical assumption tests were conducted to obtain results from the regression analysis. Hence, a more accurate and closer-to-reality outcome is expected to be achieved if the model passes the classical assumption test. In this study, the classical assumption tests used are the normality test, multicollinearity test, and heteroscedasticity test.

NORMALITY TEST ANALYSIS

Normality test is used to determine whether the dependent and independent variables in a regression model are typically or not normally distributed. Testing the normality of the data in this study used the non-parametric Kolmogorov-Smirnov (K-S) statistical test with the condition that if the significant value is greater than 0.05, then the data is declared normally distributed. Meanwhile, if the significant value is less than 0.05, the data is declared not normally distributed and cannot be continued in the next test.

Table 11. Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		50
Normal Parameters	Mean	0.6061
	Std. Deviation	0.41153
Most Extreme Differences	Absolute	0.111
	Positive	0.111
	Negative	-0.087
Kolmogorov-Smirnov Z		0.111
Asymp. Sig. (2-tailed)		0.175
a. Test distribution is Normal.		

From table 11, the results of the normality test with Kolmogorov-Smirnov show the probability value of p or Asymp is known. Sig. (2-tailed) of 0.175. Because the probability value of p, which is 0.175, is greater than the significance level, which is 0.05. It can be concluded that the assumption of normality is met and can be continued with other classical assumption tests.

MULTICOLLINEARITY TEST ANALYSIS

In this study, the multicollinearity test was executed to detect the presence or absence of multicollinearity symptoms by looking at the correlation between the independent variables and the tolerable level of collinearity, namely tolerance > 0.10 and Variance Inflation Factor (VIF) <10. In this study, the data used in this multicollinearity test are data from independent variables. Based on table 12, it is known that each VIF value is as follows:

1. The VIF value for the Independent NPL variable is 1.331 < 10 with a Tolerance value of 0.751 > 0.10, so the Independent NPL variable can be stated that there is no multicollinearity symptom.
2. The VIF value for the Independent LDR variable is 1.201 < 10 with a Tolerance value of 0.832 > 0.10, so the Independent LDR variable can be stated that there is no multicollinearity symptom.
3. The VIF value for the Independent ROA variable is 1.424 < 10 with a Tolerance value of 0.702 > 0.10, so the Independent ROA variable can be stated that there is no multicollinearity symptom.
4. The VIF value for the Independent NIM variable is 1.309 < 10 with a Tolerance value of 0.764 > 0.10, so the Independent NIM variable can be stated that there is no multicollinearity symptom.
5. The VIF value for the Independent CAR variable is 1.092 < 10 with a Tolerance value of 0.916 > 0.10, so the Independent CAR variable can be stated that there is no multicollinearity symptom.

Table 12. Multicollinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	NPL	0.751	1.331
	LDR	0.832	1.201
	ROA	0.702	1.424
	NIM	0.764	1.309
	CAR	0.916	1.092

HETEROSCEDASTICITY TEST ANALYSIS

The heteroscedasticity test is used to determine the difference in variance between the residuals of one observation and the residuals of another observation (Ghozali, 2013). Homoscedasticity occurs when the variance of the residual from one observation to another remains constant, while heteroscedasticity occurs when the variance varies. The Glejser test was used to determine heteroscedasticity; the test was performed by regressing the absolute residual value to the independent variables. The following table 13 shows the results of the heteroscedasticity test

Table 13. Heteroscedasticity Test

Model		t	Sig.
1	(Constant)	0.248	0.806
	NPL	-0.392	0.697
	LDR	1.105	0.275
	ROA	0.26	0.796
	NIM	-1.252	0.217
	CAR	0.485	0.63

The probability value (Sig) of the NPL variable is 0.697, the LDR variable is 0.275, the ROA variable is 0.796, the NIM variable is 0.217, and the CAR variable is 0.630. Because the probability value (Sig) of all variables is more than a significance of 0.05 or 5%, it can be concluded that the assumption of homoscedasticity is fulfilled, which means that there are no symptoms of heteroscedasticity.

COEFFICIENT OF DETERMINATION ANALYSIS

The coefficient of determination is used to measure how far the model is in explaining the variance of the dependent variable. The value of the coefficient of determination is between zero and one. If the coefficient of determination is getting closer to 1, then the influence of the independent variable on the dependent variable is getting higher. The following is the result of the coefficient of determination (R Square) presented in table 14.

Table 14. Coefficient of Determination

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.381a	0.145	0.048	0.961380844

Based on the results of the coefficient of determination test above, the value of R2 (Adjusted R Square) from the regression model is used to determine how much the ability of the independent variable (independent) in explaining the dependent variable (dependent). Based on the table 14, it is known that the R2 value is 0.048. This means that 4.8% of the variation of SR can be explained by variations of the five independent variables (NPL, LDR, ROA, NIM, and CAR). In comparison, the rest of (100% - 4.8% = 95.2%) is influenced by other variables outside of this study.

MULTIPLE REGRESSION ANALYSIS

Multiple linear regression analysis is used to measure the strength of the relationship between two or more variables, also showing the direction of the relationship between the dependent variable and the independent variable (Ghozali, 2011). The following are the multiple linear regression analysis results presented in the table 15.

Table 15. Multiple Regression

Model		**Unstandardized Coefficients**	
		β	**Std. Error**
1	(Constant)	-0.753	0.86
	NPL	2.645	9.436
	LDR	0.592	1.016
	ROA	10.878	9.661
	NIM	-8.72	10.99
	CAR	3.367	1.469

Based on the results of multiple linear regression analysis in table 15, the following regression model was obtained:

$$SR = -0.753 + 2.645NPL + 0.592LDR + 10.878ROA - 8.720NIM + 3.367CAR$$

The following information is obtained based on the multiple linear regression model.

1. The constant is -0.753 which means that if there is no change in the values of NPL, LDR, ROA, NIM, and CAR, the value of the SR variable is -0.753
2. The regression coefficient on the NPL variable is 2.645 and is positive, meaning that the NPL variable has increased by 1 point significantly, and the other variables have a fixed value. Then the NPL variable will increase the value of the SR variable by 2.645.
3. The regression coefficient on the LDR variable is 0.592 and is positive, meaning that the LDR variable has increased by 1 point significantly, and the other variables have a fixed value. Then the LDR variable will increase the value of the SR variable by 0.592.
4. The regression coefficient on the ROA variable is 10,878 and is positive, meaning that the ROA variable has increased by 1 point significantly, and the other variables have a fixed value. Then the ROA variable will increase the value of the SR variable by 10.878.
5. The regression coefficient on the NIM variable is 8.720 and is negative, meaning that the NIM variable has increased by 1 point significantly, and the other variables have a fixed value. Then the NIM variable will reduce the value of the SR variable by 8.720.
6. The regression coefficient on the CAR variable is 3.367 and is positive, meaning that if the CAR variable has increased by 1 point significantly, and other variables have a fixed value. Then the CAR variable will increase the value of the SR variable by 3.367.

HYPOTHESIS ANALYSIS

F-TEST ANALYSIS

The F-Test (simultaneous testing) is carried out to determine the effect of several independent variables together on one dependent variable, the basis for making this F test decision is as follows:

- If the value of Sig. <0.05, then the independent variable has a simultaneous effect on the dependent variable
- If the value of Sig. > 0.05, then the independent variable has no simultaneous effect on the dependent variable.

The following are the results of hypothesis testing f, which are presented in table 16.

Table 16. F-Test Analysis

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.919	5	1.384	1.497	0.210[b]
	Residual	40.667	44	0.924		
	Total	47.586	49			

Based on the table 16, information on the significant value of 0.210 > 0.05 means that the independent variables such as NPL, LDR, ROA, NIM, and CAR do not affect the dependent variable in the form of SR. Thus it can be concluded that there is a jointly significant effect of the independent variables in the form of NPL, LDR, ROA, NIM, and CAR on the dependent variable in the form of SR.

T-TEST ANALYSIS

The partial test (partial testing) was conducted to partially determine each independent variable's effect on the dependent variable. The partial test can be done through a statistical t-test by comparing the value of Sig. t with an alpha value of 0.05, the basis for decision-making is as follows: If Sig. <0.05, then the independent variable partially affects the dependent variable, and if Sig. > 0.05, then the independent variable has no partial effect on the dependent variable. The following are the results of the t hypothesis test, presented in table 17.

Table 17. T-Test Analysis

Coefficients			
Model		t	Sig.
1	(Constant)	-0.788	0.435
	NPL	0.732	0.468
	LDR	0.219	0.828
	ROA	0.991	0.327
	NIM	-0.989	0.328
	CAR	2.682	0.01
a. Dependent Variable: SR			

Based on the results of the t-test, which is presented in table 17, the following information is obtained:

1. The NPL variable has a significance value of 0.781, the value is greater than 0.05. Therefore, the Ho is accepted
2. The LDR variable has a significance value of 0.563. The value is greater than 0.05. Therefore, the Ho is accepted.
3. The ROA variable has a significance value of 0.266, the value is greater than 0.05. Therefore, the Ho is accepted
4. The NIM variable has a significance value of 0.432, the value is greater than 0.05. Therefore, the Ho is accepted
5. The CAR variable has a significance value of 0.027, the value is smaller than 0.05. Therefore, the Ha is accepted

CONCLUSION

The following conclusions were observed after the investigation was completed: Non-Performing Loan (NPL), Loan-to-Deposit Ratio (LDR), Return On Asset (ROA), Net Interest Margin (NIM), and Capital Adequacy Ratio (CAR) were assessed to obtain the conclusion whether those ratios influenced the Stock Return (SR) of BUKU II banks in Indonesia during the period of 2016 to 2020. The following results were obtained. NPL did not have a significant effect on the stock return. Therefore, H1 is rejected and Ho is accepted. LDR did not have a significant effect on the stock return. Therefore, H2 is rejected and Ho is accepted. ROA did not have a significant effect on the stock return. Therefore, H3 is rejected and Ho is accepted. NIM did not have a significant effect

on the stock return. Therefore, H4 is rejected and Ho is accepted. CAR had a significant effect and positive relationship on the stock return. Therefore, H5 is accepted and Ha is accepted
Based on the RBBR assessment, as cumulatively, NPL and LDR in all banks show a healthy category, ROA shows an unhealthy category. Meanwhile, the NIM and CAR show a very healthy category

In conclusion, this study showed that the NPL, LDR, ROA, and NIM did not affect the stock return, meaning that the growth or decline of those ratios did not affect the stock return. Thus, it exhibits that those ratios did not affect the decision of investors in investing in these BUKU II banks. No matter how significant the growth is or how alarming the decline is, those factors did not affect the market sentiment towards these BUKU II banks. However, based on the calculation of multiple regression analysis, the variable that has a significant influence on the stock returns of banking companies is CAR. This CAR variable can be taken into consideration in assessing the condition of banks in obtaining profits.

RECOMMENDATION

This research is only represented by five variables, namely Non-Performing Loan (NPL), Loan-to-Deposit Ratio (LDR), Return On Assets (ROA), Net Interest Margin (NIM), and Capital Adequacy Ratio (CAR) as indicators to determine the effect of stock returns on BUKU II banks. Also, the period of this research objective is only from 2016 to 2020. Thus, it is highly encouraged for further research to assess other financial ratios to obtain a deeper understanding and extend the period of the research objective. In addition, other factors such as inflation, exchange rates, and the rate of economic growth should also be considered for future research to assess the influence on stock return.

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