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An Empirical Study of Commercial Banks Performance:

The Indonesian context

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Abstract—The bank's performance is the achievement of the bank's operational activities in using its resources. The purpose of this study is to test the performance of banks listed on the Indonesia Stock Exchange. The data used is secondary data, which is obtained by purposive sampling method, and data analysis using multiple regression methods. The result shows that the Capital Adequacy Ratio, Operating Costs, and Loan to Deposit Ratio have a relatively and significantly influence to Return on Asset. The interest rate has a positive affect and significant. While Non-Performance Loan and the Inflation Rate is not a significant determinant of the performance of Return on Assets in Indonesian Banks.

Keywords—financial ratios; inflation; interest rate; performance

I. INTRODUCTION

In some previous studies, the performance of banks used two indicators, namely Return on Assets (ROA) and Return on Equity (ROE). Return on Assets (ROA) as an indicator that increases the ability of bank management to produce relative profits from the assets used. Thus, return on Assets (ROA) shows the efficiency of the management of banks that use their assets to generate income. While Return on Equity (ROE) is a large measure of the ability of bank management to produce relative profits from the equity used. Thus, return on Equity (ROE) shows the efficiency of bank management using its equity to generate income.

The bank's performance in the banking industry is an important part and gets special attention from various parties. This is because the bank's performance is used as a benchmark for management's success in managing the bank. The assessment of bank performance is generally done by looking at the profitability generated by management in managing the bank. The bank's performance is peroxide by Return on Assets (ROA), shows the ability of bank management to use its resources to generate income.

Bank operating income is derived from interest income on loans, which is income from the distribution of funds to customers, and reduced by the burden that must be paid to the owners of funds (deposit interest). This income is often referred to as the Net Interest Margin (NIM), or in other words

that the NIM is the difference between the interest on the loan (credit) and the deposit interest.

As an intermediary between debitur and creditors, banks must be able to manage the customer's funds efficiently, so they can generate maximum income. For this reason, the bank management must mobilize all of its resources and manage them effectively and efficiently. One of the most important bank resource management is liability management, where bank management seeks to develop non-traditional funding sources through loans on the money market, or by issuing debt instruments to be used profitably, especially to fulfill loan demand. The management approach to liability in banking is closely related to the side of its use on the asset side, or what is called asset management. So, it cannot be separated between how to get funds from third parties (liability management) and then optimize the use of funds collected (asset management) to generate income for the bank. The term in the banking literature is called Asset and Liability Management (ALMA).

Asset and liability management (ALMA) is the process of managing the use of assets and cash flows to meet bank obligations, reducing the risk of bank losses caused by unpaid obligations on time. If assets and liabilities are handled properly and correctly, the bank can increase its income. With the increase in bank income, the bank's performance targets as measured by Return on Assets (ROA) can be achieved.

A lot of research has been done on the factors that determine bank performance, although the results are still a lot of debate, because the findings are still different. Several studies have been conducted, among others, research conducted by Nouaili, et al, found that Size and Inflation have a significant negative effect on ROA, while CAR has a significant positive effect on ROA. Meanwhile research from Adeusi, et all, found that CAR, inflation, and Liquidity Ratio had no effect on ROA, while Asset Quality had a significant negative effect on ROA [1,2].

Alshatti, A.S in his research found that Asset Size, Asset Structure, and CAR had no effect on ROA, while Asset Quality had a negative effect on ROA, and Liquidity had a positive effect on ROA. The results of research conducted by Kingu, et all, found that NPL and Liquidity had a significant negative

effect on ROA, while CAR had a significant positive effect on ROA. While the research from Vinh, N.T.H found that NPL and Total Assets (Size) had a significant negative effect on ROA, while LDR and inflation had a significant positive effect on ROA [3-5].

Other studies related to bank performance using variable Capital Adequacy Ratio (CAR), Loan Deposit Ratio (LDR), Operating Income Operating Costs (BOPO), Non Performance Loans (NPL), Inflation, and Interest Rates have also been done previously [1-4, 6-16], although the results are still different.

This study examines several variables that affect bank performance, including; Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Operating Income Operating Costs (BOPO), Non-Performance Loans (NPLs), Inflation, and Interest Rates. Based on the results of these studies, the problems in this study are what factors determine the performance of commercial banks in Indonesia. Thus, it is necessary to do research again as a replication of previous studies.

II. METHOD

This research is a quantitative research that will examine several internal and external factors that affect bank performance. In this study will explain the relationship between variables by analyzing numerical data, using statistical methods through testing hypotheses.

The type of data used in this study is secondary data, where the data comes from financial reports from commercial banks in Indonesia. The researcher took the required data in the form of financial ratios from the Bank Indonesia website or the website of each bank that was the object of research.

The population in this study are commercial banks whose shares are listed on the Indonesia Stock Exchange (BEI-IDX) for the 2013-2016 period. Sampling in this study was carried out by purposive sampling method, is a sampling technique by considering the considerations made by researchers. There are 43 banks listed on the IDX, but only 27 banks meet the requirements during the study period, namely 2013-2016.

Data collection in this study uses quantitative methods, namely data in the form of numbers. In accordance with the form, quantitative data can be processed or analyzed using mathematical or statistical calculation techniques. The data used in this study is secondary data obtained from the financial statements of commercial banks.

The research variables used in this study are dependent and independent variables. Dependent variables include Return On Assets (ROA). While the independent variables include Capital Adequacy Ratio (CAR), Loan Deposit Ratio (LDR), Operational Income Operating Costs (BOPO), Non-Performing Loans (NPL), Inflation and Interest Rates by analyzing data using multiple regression.

III. RESULTS AND DISCUSSION

The following are the results of the data processing of commercial banks operating in the observation year, namely the beginning of 2013 until the end of 2016. Of the total 43

commercial banks listed on the Indonesia Stock Exchange (IDX) only 27 banks met the sample criteria.

Based on the descriptive statistics results, the average performance of banks that are proxies by ROA is 1.77% with a standard deviation of 0.10%. The average CAR was 17.96% with a standard deviation of 3.33%, the average LDR of 85.85% with a standard deviation of 1.123E%, the average BOPO of 83.75% with a standard deviation of 1.095E%, the average The NPL is 2.43% with a standard deviation of 1.41%, the average inflation is 0.52% with a standard deviation of 0.62%, and the average interest rate is 6.87% with a standard deviation of 0.94%.

TABLE I.   T TEST RESULT

Model	Unstand. Coefficients B	Standard. Coefficients Beta	t	Sig-t
Constant	9.560		36.54	0.000*
CAR	-0.042	-0.142	-8.279	0.000*
LDR	-0.002	-0.028	-1.732	0.084***
BOPO	-0.087	-0.690	-54.10	0.000*
NPL	0.000	-0.001	-0.078	0.938
INFLATION	-0.003	-0.002	-0.133	0.894
INTEREST	0.075	0.071	4.181	0.000*

Dependen Variable ROA.

Note: ***) Significant at level <1%.

**) Significant at level <5%.

*) Significant at level <10%.

The results of the model test, namely testing the coefficient of determination shows that the value of Adjusted R-Square is 0.898 or 89.8%. These results indicate that bank performance is influenced by CAR, LDR, BOPO, NPL, Inflation, and Interest Rate at 89.8%, and the rest is influenced by other factors. Likewise, with the results of the significance test F (F-test), shows a significance value of F of 0,000. Thus, the regression model meets the goodness of fit requirements as required in Ordinary Least Square (OLS).

Based on table 1, it can be seen that CAR and BOPO have a significant negative effect on the significance level of less than 1% to ROA. While interest rates have a significant positive effect on the significance level of less than 1% to ROA. Loan Deposit Ratio (LDR) has a significant negative effect on the significance level of less than 10% to ROA.

The results of CAR testing of ROA indicate that CAR has a negative effect on the significance of less than 1%. Thus, if the CAR increases, the bank's performance will decrease. This study is in accordance with previous research conducted by Frederick, N.K, where CAR has a negative and significant effect on ROA. But the results of this study are not in accordance with the research of Nouaili, et al and Kingu, et al, who found that CAR has a positive effect on ROA [1,4,17].

The results of testing the effect of BOPO on ROA shows the negative influence of BOPO on ROA at a significance of less than 1%. These results indicate that the higher BOPO will reduce bank performance (ROA). According to BI Circular No. 6/9 / PBI / 2004, BOPO is a ratio to measure operational efficiency [18]. Whereas the average BOPO value in the study was 83%, while the best BOPO standard according to Bank

Indonesia Regulation No. 6/9 / PBI / 2004 is 92%, it means that the bank can be categorized as having met the efficient standard in carrying out its operations [18].

Conceptually, banks that work efficiently will be able to generate high profits, because the efficiency of operating costs will maximize bank revenues. The results of this study are in accordance with the research of Anarfi, D, who found that the cost of overhead negatively affects ROA. But not in accordance with the results of research from Nouaili, et al, who found no effect of efficiency on ROA [1,16].

The results of testing the effect of NPL on ROA indicate that NPL does not affect the performance of the bank, but the coefficient shows a negative direction. These results indicate that changes in NPL will not affect bank performance (ROA). The results of this study are consistent with previous research conducted by Vincent Okoth [19], Adeusi, et al. [2], Vinh, NTH [5], Alshatti, A.S. [3], which stated that NPL had no effect on ROA value. But the results of this study are not in accordance with the research of Kingu, et al. [4], who found that NPL has a negative influence on significance of less than 1%.

Another result is that the LDR has no effect on bank performance (ROA). This shows that changes in LDR will not have a significant impact on bank performance (ROA, but has a negative direction coefficient. The results of this study are not in accordance with research conducted by Vinh, N.T.H. [5], which found that NPL has a positive effect on ROA.

The results of testing the effect of inflation on bank performance shows that inflation does not effect on ROA. This result is consistent with the research conducted by Adeusi, et al., Frederick, N.K, where the value of Inflation also does not effect on ROA. The results of this study are also not in accordance with research from Vinh, N.T which found that inflation has a positive effect, and Adeusi, et al, who found that inflation has a positive effect on bank performance [2,5,17].

Furthermore, the results of testing the effect of interest rates on bank performance (ROA) indicate that the interest rate has a positive effect on the significance of less than 1% on bank performance (ROA). So, the increase in interest rates will improve the performance of the ban (ROA). In economic theory, if money market interest rates increase, the national income level will decrease, because the credit interest rate rises. Rising lending rates will have an impact on decreasing credit demand, which can result in a decrease in bank income. In the Purchasing Power Parity theory where the tendency of high interest rates will attract fund owners to enter their funds into the bank, the bank's capital will rise, and allow banks to rotate funds to get high profitability. However, in conditions of high credit interest rates, it is unlikely that banks can increase their credit volumes, even the opposite. Therefore, the results of this study are inappropriate and do not support the concept of economic theory, but support Purchasing Power Parity Theory.

IV. CONCLUSION

The test results show that the performance of the banks listed on the Indonesia Stock Exchange is quite good, because the ROA results in an average of 1.77%, this result is higher than the PBI standard [18], that is 1.5%. Likewise, from the efficiency side, it is quite efficient, as indicated by the average BOPO of 83.75%, lower than the PBI standard, which is 92% [18]. The interest rate that is set is still fair (an average of 6.87%) is in accordance with PBI provisions between 6% and 7%, so that it can be accepted by the public. Thus, the results of this study are in line with the Purchasing Power Parity Theory where the tendency of high interest rates will attract fund owners to enter their funds into banks, so that bank capital will increase allowing banks to turn funds and have high profits. However, bank management still needs to improve better performance by maximizing the use of public funds not yet optimal. This is indicated by the negative influence of CAR on bank performance. These results indicate that the increase in bank capital has not been used optimally, so that its Return on Assets falls.

REFERENCES

[1] N. Nouaili, E. Abaoub, and A. Ochi, "The Determinants of Banking Performance in Front of Financial Changes: Case of Trade Banks in Tunisia," International Journal of Economics and Financial, vol. 5, no. 2, pp. 410-417, 2015.

[2] S.O. Adeusi, F.T. Kolapo, and A.O. Aluko, "Determinants of Commercial Banks' Profitability", International Journal of Economics, Commerce and Management, vol. 2, no. 12, pp 1-18, 2014.

[3] A.S. Alshatti, "Determinants of Banks' Profitability" – The Case of Jordan. Investment Management and Financial Innovations, vol. 13, no. 1, pp 84-91, 2016.

[4] P.S. Kingu, S. Macha, and R. Gwahula, "Impact of Non-Performing Loans on Bank's Profitability: Empirical Evidence from Commercial Banks in Tanzania," International Journal of Scientific Research and Management (IJSRM), 2005, vol. 6, no. 01, pp. 71-79, 2018.

[5] N.T.H. Vinh, "The impact of non-performing loans on bank profitability and lending behavior": Evidence from Vietnam, Journal of Economic Development, vol. 24, no. 3, pp 27-44, 2014.

[6] P. Bourke, "Concentration and other Determinants of Bank Profitability in Europe, North America and Australia", Journal of Banking and Finance, vol. 13, no. 1, pp. 65-79, 1989.

[7] A.N. Berger, "The Profit-Structure Relationship in Banking. Test of Market Power and Efficient-Structure Hypotheses," Journal of Money, Credit and Banking, vol. 27, pp. 404-431, 1995.

[8] A. Demirgüç-Knut, and H. Huizinga, "Financial Structure and Bank Profitability", World Bank Policy Research Working Paper, pp. 2430, 1999.

[9] M. Abreu, and V. Mendes, "Commercial Bank Interest Margins and Profitability": Evidence from E.U. Countries. Working Paper Series, Porto, 2002.

[10] J. Goddard, P. Molyneux, and J. Wilson, "The Profitability of European Banks,": a Cross-Sectional and Dynamic Panel Analysis. Manchester School, vol. 72, no. 3, pp. 363-381, 2004.

[11] S. Naceur, and M. Goaied, "The determinants of the Tunisian deposit banks'performance," Applied Financial Economics, vol. 11, no.3, pp 317-319, 2000.

[12] F. Pasiouras, K. Kosmidou, and A. Tsaklanganos, "Domestic and Multinational Determinants of Foreign Bank Profits: the Case of Greek Banks Operating Abroad," Journal of Multinational Financial Management, vol.17, pp 1-15, 2007.

[13] A. Garcia-Herrero, S. Gavila, and D. Santabarbara, "What Explains the Low Profitability of Chinese Banks?," Journal of Banking and Finance, vol. 33, no. 11, pp. 2080-2092, 2009.

[14] H. Liu, and J.O.S. Wilson, "The profitability of banks in Japan. Applied Finanial Economics," vol. 20, no. 24, pp. 1851-1866, 2010.

[15] O. De Jonghe, "Back to the Basics in Banking? A Micro-Analysis of Banking System Stability," Journal of Financial Intermediation, vol.19, pp. 387-417, 2010.

[16] D. Anarfi, "Determinants of Bank Profitability in Ghana": New Evidence, Asian Journal of Finance & Counting, vol. 8, no. 2, pp. 194-204, 2016.

[17] Frederick, and N. Kijjambu, "Factors Affecting Performance of Commercial Banks in Uganda – A Case for Domestic Commercial Banks". International Review of business Research Papers, vol. 11, no. 1, pp 95-113, 2015.

[18] Bank Indonesia Regulation Number: 6/24 / PBI / 2004 Concerning Commercial Banks that Implement Business Activities Based on Sharia Principles, 2004.

[19] Ongore, Vincent Okoth dan Gemechu Berhanu Kusa, "Determinants of Financial Performance of Commercial Bank in Kenya". International Journal of Economic and Financial Issue, vol. 3, no. 1, pp. 237-252, 2013.

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