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THE INFLUENCE OF LOAN AT RISK AND BANK SPESIFIC VARIABLES ON THE PROFITABILITY OF COMMERCIAL BANKING IN INDONESIA BASED ON CORE CAPITAL: PERIOD 2015 TO 2022

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Abstract

This research aims to examine the influence of loan at risk (LAR) and other specific bank variables, namely size, leverage, and capital, on the profitability of commercial banks in Indonesia based on the classification of core capital set by banking authorities. The study utilizes panel data regression with a balanced fixed-effect model from a sample of 67 examined commercial banks, both in aggregate and based on the core capital classification of each bank, covering the research period from 2015 to 2022. The results indicate that the credit asset portfolio with LAR quality significantly affects the profitability of commercial banks negatively, both in terms of ROA and ROE, applying to the entire group of commercial banks studied. Meanwhile, other specific variables have varying degrees of influence and significance. Collectively, the independent variables in all research models have a significant impact on the profitability of all commercial banks in Indonesia. The findings of this study can contribute to the reference for bank management and other stakeholders in assessing the profitability performance of commercial banks, as well as expanding the literature in the field of banking.

Key Words: Loan At Risk; Size; Leverage; Capital; Profitability

Introduction

The banking sector serves as the primary driver of the national economy. According to data from the Indonesian Economic and Financial Statistics (SEKI) as of December 2022 – (Bank Indonesia, 2022), the amount of money circulating in the banking sector in the form of rupiah demand deposits and quasi-money (time deposits, savings, and foreign currency demand deposits) reached IDR 7.605 trillion or 89.18% of the total money supply (M2). The total money supply in the banking sector for the period from 2015 to 2022, as presented in figured 1.

Considering the crucial role of the banking sector, the Financial Services Authority (OJK) as the banking authority mandates commercial banks to meet specific parameters in assessing their bank health at each period (Anugrah et al., 2020; Hery et al., 2019; Nurhasanah, 2021). These parameters include the implementation of good corporate governance, risk profile, capital adequacy, and profitability.

More specifically, the parameters used by OJK to assess the profitability condition of banks are primarily based on the return on assets (ROA) and return on equity (ROE) ratios based on POJK No. 4, 2016. These regulations generally guide the evaluation of a bank's profitability, considering it to be better as the ROA and ROE ratios increase, both on an individual basis and when compared to similar ratios within its peer group or the overall national banking industry. The development of ROE and ROA ratios in Indonesian commercial banks from 2015 to 2022 is illustrated in the figured 2 chart.

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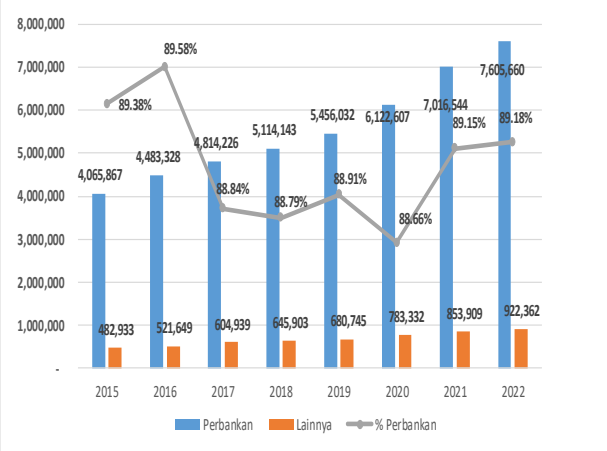
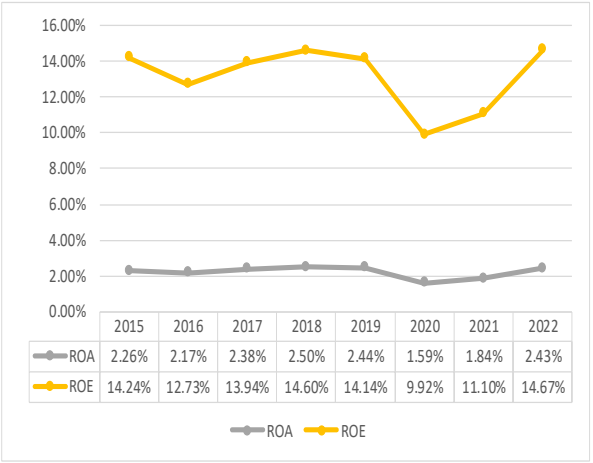


Figured 1. Historical Money Supply on Banking Sector



Figured 2. Commercial Bank ROA and ROE

Based on figured 2, overall performance of the banking industry in Indonesia is considered positive and shows an increasing trend, with the exception of the end of 2020 where there was a decline due to the impact of the Covid-19 pandemic affecting the national and global economy as a whole. However, the profitability performance of the banking sector has rebounded, as evidenced by the ROA and ROE ratios at the end of 2022, reaching 2.43% and 14.67%, respectively, which are the highest ratios in the last eight years.

Among various factors influencing the level of profitability, credit risk is considered the most significantly impactful factor. This assessment is based on the total amount of credit assets in commercial banks in Indonesia, reaching Rp6.423 trillion or 57.80% of the overall total assets amounting to Rp11.113 trillion. Additionally, it contributes to income by reaching Rp523 trillion or 64.51% of the total interest income of commercial banks in December 2022 (Indonesian Banking Statistics, 2022). Therefore, in general, the better the quality of credit asset distribution a commercial bank possesses, the expected improvement in the overall profitability or financial performance of the bank.

Based on the OJK regulation regarding the assessment of the quality of assets in commercial banks based on POJK No. 40, 2019, credit assets disbursed by commercial banks can be categorized into 5 (five) quality groups. These classifications are determined by the duration of overdue payments for installment or compensation obligations, namely: current, special mention, substandard, doubtful, and bad. Furthermore, there is a common parameter used to measure the success of managing the credit disbursement process in a bank, which is based on the non-performing loan (NPL) ratio. This ratio is obtained by dividing the total problematic credit assets (classified as substandard, doubtful, and bad quality) by the overall credit assets held by the bank.

A credit asset portfolio categorized as NPL signifies a decline in the ability of customers to meet their obligations, thereby reducing the bank's fund disbursement income. In response to this matter, the bank may undertake corrective measures, including restructuring. The improvement in asset quality through restructuring does not always reflect a true enhancement in the quality of assets, thus not fully contributing to a positive impact on the improvement of a bank's profitability. This situation leads to the low NPL ratio not entirely reflecting the low potential credit risk in the national banking sector.

Another parameter in assessing the credit risk of banking can be measured through the Loan at Risk (LAR) ratio. The LAR is calculated based on the total amount of credit assets that have experienced a decline in quality or are potentially at risk of declining quality in the future, related to the special treatment provided by the bank through restructuring. This includes the entire bank credit portfolio with NPL quality added to the quality under special mention and current quality but with restructuring status. The LAR ratio is not presented in the public financial reports of commercial banks, so the calculation is performed separately using the formula mentioned above. In connection with the mentioned matter, the average Loan at Risk (LAR) data for the national banking sector as of December 2022 reached 14.05%. Consequently, there is a significant difference compared to the Non-Performing Loan (NPL) ratio, which is at 2.44%. In this case, there exists a gap of 11.61% that is not reflected in the public reports submitted by banks in each reporting period.

In line with the importance of profitability for banks, OJK has also issued regulations to strengthen the capital of commercial banks, requiring them to reach IDR 3 trillion by 2022 for banks serving as the main entities within a banking group based on POJK No. 12, 2020. Furthermore, OJK has made changes to the classification of commercial banks based on POJK No. 12, 2021 by introducing four Core Capital-based Bank Groups (KBMI), which generally distinguish banks based on a larger core capital compared to the previous classification known as Commercial Bank Based on Business Activity (BUKU). The classification of banks based on core capital as shown in the following table:

Table 1. Classification of Indonesian Commercial Bank based on Core Capital

Previous Classification	Core Capital	New Classification	Core Capital
BUKU 1	Less than IDR 1 trillion	KBMI 1	Up to IDR 6 trillion
BUKU 2	IDR 1 trillion up to less than IDR 5 trillion	KBMI 2	IDR 6 trillion up to less than IDR 14 trillion
BUKU 3	IDR 5 trillion up to less than IDR 30 trillion	KBMI 3	IDR 14 trillion up to less than IDR 70 trillion
BUKU 4	More than IDR 30 trillion	KBMI 4	More than IDR 70 trillion

Sources: Processed by researchers, 2023

Based on the background regarding the crucial role of the banking sector in the national economy, changes in the classification of commercial banks based on the core capital, the significant influence of the quality of credit assets on profitability, the credit risk assessment parameter not included in the public reports of commercial banks, and several previous studies on factors affecting the profitability of banks, which generally only use the NPL ratio as a parameter in measuring credit risk, this research aims to explore the differences in the impact of LAR held by banks and other specific banking factors, namely bank size, capital, and gearing ratio, on the profitability of commercial banks based on the classification of core capital in the banking sector in Indonesia. The findings of this study can contribute to the reference for bank management and other stakeholders in assessing the profitability performance of commercial banks, as well as expanding the literature in the field of banking.

In line with the general objective of establishing a company, which is to enhance value for shareholders (Ross et al., 2019), profitability in the banking sector is defined as a bank's ability to generate sufficient profits from its operational activities. It is influenced

by internal factors, also known as bank-specific factors, including size, capital strength, credit risk, cost management, and liquidity, as well as external factors or macroeconomic conditions in a country and region where the bank operates, such as productivity growth and inflation (Adelopo et al., 2018).

The size of a bank is a critical factor affecting a bank's profitability because it affects the operational activities of the bank to reduce costs and achieve the specified level of economies of scale (Akhtar et al., 2011). Furthermore, Sufian's (2011) study on the profitability of the Korean banking sector comes to the conclusion that economies of scale and bank size are positively correlated. Thus, when a bank's size and profitability are positively correlated, it is said to have reached economies of scale. On the other hand, the bank is said to not have realized economies of scale if the connection is negative.

The capital strength of a bank indicates its capacity to meet the needs of depositors and conveys signals to customers regarding the stability and ability of the bank to protect the deposits of account holders (Ghosh, 2016). Through such signaling, Adelopo et al. (2018), citing previous research, highlight a positive relationship between capital strength and bank profitability. This relationship is based on the premise that well-capitalized banks, due to their robust capital base, are better positioned to exploit market opportunities and attract more deposits. This, in turn, leads to potential interest income and improved income diversification. Importantly, even during financial crises, Adelopo et al. (2018) find that a bank's capital strength maintains a consistent positive relationship compared to the period before the financial crisis. However, contrary to several of the mentioned studies, Akhtar et al. (2011) and Gul et al. (2011) found that bank capital has a negative influence on the banking sector in Pakistan. This is attributed to the banking system in Pakistan, which adjusts the capital adequacy ratio as capital proxy based on the risk levels held by banks, including to support the risky assets held by the bank.

In addition to the two internal factors mentioned earlier, the leverage factor measured by the gearing ratio can also influence the level of profitability of a company. According to Brigham and Houston (2021), the gearing ratio is a comparison between debt and equity. This ratio illustrates the extent to which a company relies on funds from loans to finance its operational activities. Meanwhile, Ross et al. (2019) state that the gearing ratio can affect a company's profitability. In some cases, the use of debt capital can increase a company's profitability by taking advantage of lower interest costs compared to equity costs, so the impact of the gearing ratio on bank profitability can be positive, where the higher the ratio, the higher the profitability. However, on the contrary, Akhtar et al. (2011) found that the influence of the gearing ratio on the profitability of a bank has a negative correlation. This is because the higher the gearing ratio, the higher the bank's dependence on funding from third parties or it represents high liquidity risk. This leads to bank depositors or other lenders demanding a high level of return, thereby impacting the increase in the cost of funds for the bank, which will decrease the level of profitability.

The research conducted by Bawa et al. (2019) on banks in India indicates that the results of a portfolio of restructured assets in a bank have a negative relationship with the bank's profitability. Consequently, banks with high levels of restructured assets tend to have higher credit risk and lower profitability. This is attributed to the bank's efforts to improve the quality of its assets not resulting in interest income or principal payments to the bank. Nevertheless, it should be noted that restructuring can have a direct impact on the Non-Performing Loan (NPL) ratio. Through the conducted restructuring, a bank can reduce the number of problematic credit assets that should be recorded as NPLs. The

improvement in asset quality through restructuring does not always reflect a true enhancement in the quality of assets, thus not fully contributing to a positive impact on the improvement of a bank's profitability. This situation leads to the low NPL ratio not entirely reflecting the low potential credit risk in the national banking sector.

Research Method

This research is conducted through an empirical approach, and the data used in this study is derived from secondary sources, namely reports published by the OJK and Bank Indonesia, yearly financial publications of each commercial bank listed on corporate websites, along with other relevant research data, during the period from 2015 to 2022.

The criteria set for the selection of sampled banks include commercial banks that are registered and continuously publish financial reports during the period from 2015 to 2022. Furthermore, selected commercial banks must have financial data used as research variables, such as the ratio of financing assets with special attention to quality, non-performing loans, and restructuring with the quality of current assets against the total credit assets, total assets, gearing ratio, bank capital, and ROA, ROE ratios.

The data will be consolidated and organized based on time series and cross-sectional analysis with annual periods throughout the research period from 2015 to 2022. Additionally, further exploration will be conducted using a panel data regression model. In studying the relationship between the examined variables, the panel data regression model has three approaches: pooled least squares, fixed effect model, and random effect model, therefore, before conducting the regression estimation test for the data model, a model selection process is performed to determine the best model for estimating the panel data regression, using approaches such as the Chow test, Hausman test, or Lagrange multiplier (Gujarati & Porter, 2010).

Based on the specified criteria, 67 commercial banks were selected for the research, representing 90.5% of the total national banking assets as of December 2022. Subsequently, the data will be examined both aggregate with 536 observation points and based on each bank's classification within the KBMI, following OJK guidelines.

The independent variables used in the research are low-quality credit assets (LAR), bank size (SIZE), leverage through the gearing ratio (GR) proxy, and capital through the capital adequacy ratio (CAR) proxy. Meanwhile, the dependent variables under investigation are profitability with the proxy of ROA and ROE ratios.

The research model employed is represented by equations 1 and 2.

$$\boldsymbol{ROA_{it} = \alpha_{it} + \beta_1 SIZEit + \beta_2 GR_{it} + \beta_3 LAR_{it} + \beta_4 CAR_{it} + \varepsilon_{it}}$$

$$\boldsymbol{ROE_{it} = \alpha_{it} + \beta_1 SIZEit + \beta_2 GR_{it} + \beta_3 LAR_{it} + \beta_4 CAR_{it} + \varepsilon_{it}}$$

The definition of research variables based on the model is as follows:

Table 2. Variable Definition

Symbol	Variable	Definition
ROAit	Return on Asset	$\frac{\text{Earning Before Tax}}{\text{Average Total Asset}}$
ROEit	Return on Equity	$\frac{\text{Earning After Tax}}{\text{Average Total Asset}}$
SIZEt	Bank Size	Logaritma Natural Total Asset
GRit	Gearing Ratio	$\frac{\text{Total Debt}}{\text{Total Equity}}$

Symbol	Variable	Definition
LARit	Loan At Risk	$\frac{\text{Credit Asset (Special Mention + Current with restructuring + NPL)}}{\text{Total Credit Asset}}$
CAR	Capital Adequacy Ratio	$\frac{\text{Total Capital}}{\text{Risk Weighted Asset}}$

Sources: Processed by researchers, 2023

Results and Discussion

Based on the model selection tests conducted on the aggregate bank group, as shown in tables 3 and 4, where the Chow test indicates a p-value < 0.05 and the Hausman test also shows a p-value < 0.05, it is concluded that the best model for the research is the Fixed Effects Model (FEM). The next step involves using this model to study the relationships between the variables examined in each bank group (KBMI 1-4) that is the subject of the study for comparison.

Table 3. Chow test result

Effects Test	Statistic	d.f.	Prob.
Cross-section F	7.888260	(66,465)	0.0000
Cross-section Chi-square	402.663960	66	0.0000

Table 4. Hausman test result

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	15.944944	4	0.0031

Empirical Model and Estimation Results

The regression estimation results in table 5 and table 6 show that the estimation model of factors influencing ROA and ROE for the commercial bank groups, both in aggregate or based on core capital, has a probability (F-statistic) for all model scenarios of 0.000 or smaller than the probability α = 1%. Therefore, it can be concluded that the independent variables together in all model scenarios have a significant influence on the dependent variable ROA at a confidence level of 99%.

Table 5. Results of ROA Estimation Model

Variable	Group of Aggregated Bank	KBMI 1	KBMI 2	KBMI 3	KBMI 4
Coefficient (C)	-0.09153*	-0.00514	-0.33932 *	-0.04181	-0.09607
SIZE (Ln Asset)	0.00639*	0.00064	0.02208 *	0.00316	0.00603 ***
Leverage (G Ratio)	0.00063	0.00151 ***	-0.00037	-0.00165 **	0.00096
Capital (CAR)	-0.01382*	-0.00936 ***	-0.04200 *	0.05732 **	0.03916
Loan At Risk (LAR)	-0.04767*	-0.03328 *	-0.07530 *	-0.03648 **	-0.09885 *
R-Squared	0.61214	0.43735	0.75538	0.54308	0.89545
Adj-Squared	0.55375	0.34839	0.712352	0.45905	0.86496
F-Statistic (Prob)	0.00000	0.00000	0.00000	0.00000	0.00000

Explanation:

- *, **, and *** indicate significance levels at 1%, 5%, or 10%.

Sources: *Processed by researchers, 2023*

The adjusted R^2 values differ across the ROA model scenarios based on the classification of core capital groups, as follows: The aggregated bank model can explain 55.37% of ROA, KBMI 1 model 34,83%, KBMI 2 model 71,23%, KBMI 3, 45,90%, and KBMI 4 86,4%, while the remaining is contributed by other variables outside the scope of the study.

ROA Model Results

Coefficient of the size variable in the overall model is considered positive; however, with different levels of significance. In the aggregate bank group and KBMI 2, the size variable is significant at α = 1%, and in KBMI 4, it is significant at α = 10%, resulting in a confidence level above 90%. Nevertheless, the influence of the size variable on KBMI 1 and 3 is considered not significant. The positive sign in the coefficient of the independent variable indicates a consistent direction between the increase in size and ROA, implying that commercial banks in various groups in the research scenario have, on average, achieved economies of scale.

The dependence of banks on funding sources from external parties is reflected in the high gearing ratio they possess. Based on the regression results, there are differences in the influence and significance level in the coefficient of the gearing ratio among bank groups based on core capital. Specifically, the impact of the gearing ratio is only found to be significant on ROA at a 5% level of significance in KBMI 3 with a negative coefficient and at a 10% level of significance in KBMI 1 with a positive coefficient. This indicates differences in the impact of the gearing ratio on the respective bank groups, meaning that in KBMI 1, the gearing ratio can positively affect the ROA of banks, while conversely, in KBMI 3, the gearing ratio becomes a factor that reduces the ROA of banks.

The impact of bank capital on ROA differs among the aggregated bank group, KBMI 1, and KBMI 2, with negative coefficients. However, for KBMI 3 and KBMI 4, the coefficients are positive. The significance of CAR on the bank's ROA at a 1% significance level occurs in the aggregated bank group and KBMI 2, while KBMI 3 is significant at a 5% level, and KBMI 1 is significant at a 10% level, while KBMI 4 is considered not significant.

The LAR ratio reflects the level of credit risk held by each group of commercial banks studied. It is known that the impact of the LAR ratio on the entire group of banks is consistently negative with a significance level of α = 1%, except for KBMI 3, where the significance level is α = 5%. This indicates that the larger the LAR ratio, the more it will lead to a decrease in the ROA of banks across all groups.

Table 6. Results of ROE Estimation Model

Variable	Group of Aggregated Bank	KBMI 1	KBMI 2	KBMI 3	KBMI 4
Coefficient (C)	-0.61528*	-0.28892	-1.69779 *	-0.44000	-0.37934
SIZE (Ln Asset)	0.03984 *	0.01947	0.10443 *	0.02809	0.01224
Leverage (G Ratio)	0.00770 **	0.00619	0.01829 ***	-0.00680	0.03836 **
Capital (CAR)	-0.03898	-0.01957	-0.16174**	0.34869 **	0.74852
Loan At Risk (LAR)	-0.33471*	-0.22180 *	-0.60566*	-0.28416 *	-0.60404*
R-Squared	0.54696	0.44037	0.64388	0.49012	0.72498
Adj-Squared	0.47877	0.35188	0.58123	0.39635	0.64477
F-Statistic (Prob)	0.00000	0.00000	0.00000	0.00000	0.00019

Explanation:
- *, **, and *** indicate significance levels at 1%, 5%, or 10%.

Source: *Processed by researchers, 2023*

The adjusted R^2 values differ across the ROE model scenarios based on the classification of core capital groups, as follows: The aggregated bank model can explain 47.87% of ROA, KBMI 1 model 35,18%, KBMI 2 model 58,12%, KBMI 3, 39,63%, and KBMI 4 64,47%, while the remaining is contributed by other variables outside the scope of the study.

ROE Model Results

Size variable in the overall model are positive. However, the significance levels vary; in the aggregate bank group and KBMI 2, size is significant at $\alpha = 1\%$. Nevertheless, the influence of the size variable on KBMI 1, KBMI 3, and KBMI 4 is considered not significant. The positive sign in the coefficient of the independent variable indicates a consistent direction between the increase in size and the increase in ROE, suggesting that, on average, commercial banks in various groups in the research scenario have achieved economies of scale.

There are variations in the influence and level of significance in the gearing ratio coefficient among bank groups based on core capital. The impact of the gearing ratio is notably significant on ROE at $\alpha = 5\%$ in both the aggregate bank group and KBMI 4, showing a positive coefficient. However, in KBMI 2, the gearing ratio coefficient is also positive but with a significance level of only $\alpha = 10\%$.

Capital adequacy ratio on ROE, as indicated by the regression results, varies across the bank groups in aggregate, KBMI 1, and KBMI 2, with negative coefficients. Conversely, for KBMI 3 and KBMI 4, the coefficients suggest a positive impact. The significance of CAR on ROE is observed at the 5% level for KBMI 2 and KBMI 3, whereas other bank groups are deemed not significant.

LAR ratio on ROE across all groups of commercial banks consistently shows a negative and significant effect at the 1% level. This implies that an increase in the LAR ratio leads to a decrease in the bank's ROE.

Analysis of the Findings from ROA and ROE Models:

The impact of a bank's size on its profitability shows a positive relationship with varying significance levels. Specifically, it is significant for ROA in the aggregate bank group, KBMI 2, and 4, and for ROE in the aggregate bank group and KBMI 2. Other bank groups are considered not significant. These findings align with previous research conducted by Ercegovac et al. (2020), Adelopo et al. (2018), Sufian (2011), Gul et al. (2011), and Akhtar et al. (2011). Consequently, it can be concluded that, on average, public banks in Indonesia from 2015 to 2022 have exhibited economies of scale, considering that the larger their assets, the more positive the impact on profitability represented by ROA and ROE.

Furthermore, the research results indicate that although the correlation between the size variable (ln assets) has the same direction for all model scenarios of bank groups, the most significant correlations influencing ROA and ROE are found in KBMI 2, namely 0.0220 for ROA and 0.1044 for ROE. This is partly due to the profile of banks within KBMI 2, which can be categorized as medium-sized banks based on core capital ownership, with a range of IDR 6 trillion to IDR 14 trillion. Consequently, the size of

assets still has a significant impact on the ability of banks to increase overall income. However, the impact of assets on income diminishes as banks scale up.

Leverage significantly influences the ROA and ROE of banks with a positive direction in KBMI 1 for ROA and KBMI 1, 2, and 4 for ROE. However, a significant negative direction is observed only in KBMI 3 for ROA. This finding differs slightly from previous research conducted by Akhtar et al. (2011), which concluded that leverage significantly affects ROA but not ROE.

Leverage positively influences ROA, with the highest correlation observed in the KBMI 1, indicating that this group is adept at leveraging its debt to generate optimal income. Meanwhile, the most significant positive impact on ROE occurs within KBMI 4. This suggests that the debt held by KBMI 4 has a positive effect on increasing ROE compared to funding derived from the bank's own capital. This, among other things, highlights the cost efficiency of KBMI 4 banks with a large-scale business, where the cost of debt is relatively low compared to banks in smaller core capital groups.

Capital has varying effects on the bank's profitability, with a negative impact observed on KBMI 1 and KBMI 2. This aligns with previous findings by Gul et al. (2011) and Akhtar et al. (2011), who concluded that the impact of capital on bank profitability in Pakistan is significant and negative. This is likely because banks in KBMI 1 and KBMI 2 generally have higher risks, and an increase in CAR ratio tends to be used as a buffer to form reserves in case of increased risk within these groups.

On the contrary, KBMI 3 experiences a positive impact from the CAR ratio, aligning with previous research conducted by Adelopo et al. (2017) on banks in the ECOWAS region and Salike and Ao (2018) in several Asian countries. The positive effect indicates that the bank's capital has been effectively utilized to enhance the bank's income.

In all model scenarios, LAR significantly influences ROA and ROE negatively, aligning with the initial hypothesis. Therefore, it can be concluded that the profitability of commercial banks is highly affected by the level of the LAR ratio they possess.

The LAR ratio, divided into the quality of special mention and restructuring credits with a current quality that both are not categorized as NPL, implies that, in general, a portion of the credit portfolio in these qualities should still have income potential for the bank. However, based on the research findings, the negative correlation with LAR indicates that the income generated from both portfolios with the mentioned qualities is not able to compensate for the lost income in the NPL portfolio. Consequently, the aggregate LAR ratio in the entire group of commercial banks will decrease income, leading to a decline in the ROA and ROE ratios of the bank.

Conclusion

Through the analysis of panel data regression results using a fixed effect model on bank groups based on core capital, conclusions have been drawn to address the research question regarding the impact of loan at risk and specific bank factors such as size, leverage, and capital on bank profitability, measured through ROA and ROE parameters. These findings are expected to provide benefits by offering additional references for commercial banks in Indonesia to evaluate individual performance and for the public as depositors to assess the level of profitability of a commercial bank.

The findings of the research indicate that loan at risk significantly has a negative impact on the ROA and ROE of commercial banks in Indonesia, both overall and when grouped based on core capital regulated by the authorities, therefore LAR is more capable of reflecting the credit risk of commercial banks compared to other similar studies using

the NPL ratio as a proxy for credit risk. Meanwhile, other specific bank factors show variations in their influence on the profitability of commercial banks, either negatively or positively, based on the different bank groups that are the focus of the study.

BIBLIOGRAPHY

Adelopo, I., Lloydking, R., & Tauringana, V. (2018). Determinants of bank profitability before, during, and after the financial crisis. *International Journal of Managerial Finance*, *14*(4). https://doi.org/10.1108/IJMF-07-2017-0148

Akhtar, M. F., Ali, K., & Sadaqat, S. (2011). Factors influencing the profitability of conventional banks of Pakistan. *International Research Journal of Finance and Economics*, *66*.

Anugrah, D., Fathanudien, A., & Tendiyanto, T. (2020). The Roles of Bank Indonesia and Financial Services Authority as Rural Banks' Supervision Agency. *UNIFIKASI: Jurnal Ilmu Hukum*, *7*(2), 215–222.

Bawa, J. K., Goyal, V., Mitra, S. K., & Basu, S. (2019). An analysis of NPAs of Indian banks: Using a comprehensive framework of 31 financial ratios. *IIMB Management Review*, *31*(1). https://doi.org/10.1016/j.iimb.2018.08.004

Bank Indonesia. (2022). Statistik Ekonomi dan Keuangan Indonesia (SEKI), Publikasi Bank Indonesia, www.bi.go.id

Brigham, Eugene F. & Houston, J. F. (2021). Fundamentals of Financial Management, Concise Eighth Edition. *Boston, Cengage Learning*, *15*.

Ercegovac, R., Klinac, I., & Zdrilić, I. (2020). Bank specific determinants of eu banks profitability after 2007 financial crisis. *Management (Croatia)*, *25*(1). https://doi.org/10.30924/mjcmi.25.1.5

Ghosh, S. (2016). Political transition and bank performance: How important was the Arab Spring? *Journal of Comparative Economics*, *44*(2). https://doi.org/10.1016/j.jce.2015.02.001

Gujarati, D. N., & Porter, D. C. (2010). Dasar-Dasar Ekonometrika. In *Revista de Administração de Empresas* (Vol. 16, Issue 3).

Gul, S., Irshad, F., & Zaman, K. (2011). factors affecting bank profitability in pakistan. *The Romanian Economic Journal*, *14*(39).

Hery, A., Yustianti, S., & Susilo, D. (2019). Authority of Banking Supervision And Regulation By Bank Indonesia And Financial Services Authority (OJK). *YURISDIKSI: Jurnal Wacana Hukum Dan Sains*, *14*(1), 20–33.

Nurhasanah, N. (2021). The Internalisation of Hisbah Principles in OJK Regulations on Islamic Banking Compliance Supervision. *Al-Uqud: Journal of Islamic Economics*, *5*(2), 275–291.

Ross, S. A., Jaffe, J., & Kakani, R. K. (2019). *Corporate Finance*. McGraw-Hill Education.

Salike, N., & Ao, B. (2018). Determinants of bank's profitability: role of poor asset quality in Asia. *China Finance Review International*, *8*(2). https://doi.org/10.1108/CFRI-10-2016-0118

Sufian, F. (2011). Profitability of the Korean banking sector: panel evidence on bank-specific and macroeconomic determinants. *Journal of Economics and Management*, *7*(1).