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The Effect of Loan Distribution Rate on Profitability with Bank Central Indonesia Interest Rates (BI Rate) as Moderating Variable

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Abstract: **Financial institutions such as banks make an important contribution to economic development, where banks act as intermediary institutions between parties who need funds and those who have funds. Given the importance of the role and function of banking in the economy, banks need to maintain their business continuity so that banks are forced to implement a bank soundness rating system. Profitability is one of the indicators in assessing the soundness of a bank. This research design uses a quantitative approach in the form of associative. This research was conducted on banking sub-sector companies listed on the Indonesia Stock Exchange (IDX) for the 2016-2020 period. The population used were all banking sub-sector companies listed on the Indonesia Stock Exchange from 2016-2020, the selection of this research sample was based on a non-probability approach using the purposive sampling method. The results show that the Loan Distribution Rate has a positive effect on profitability, BI Rate affects the relationship between the Loan Distribution Rate and profitability.**

Keywords: **Credit Distribution with Profitability, BI Rate.**

I. INTRODUCTION

Along with the development of the economy in Indonesia, resulting in higher activity in the business and business world, thus the need for funds is also increasing (Ledhem & Mekidiche, 2020). Financial institutions such as banks make an important contribution to economic development, where banks act as intermediary institutions between parties who need funds and those who have funds (Andesfa & Masdupi, 2019). This intermediation occurs when the owner of the funds entrusts their money to be stored in various forms of savings to the bank, and the bank distributes it to the recipient of the funds in the form of credit or loans. Profitability is one of the indicators in assessing the soundness of a bank (Salina et al., 2021). The profitability ratio is a ratio to assess the company's ability to seek profit (Sahyouni et al., 2021). A bank needs to maintain a stable level of profitability and even increase to fulfill obligations to shareholders, increase the attractiveness of investors in investing and increase public interest and confidence in saving their funds in the bank (Bansal et al., 2018). The amount of credit and non-performing loans will affect the profitability of a bank.

Bank profitability can be seen by calculating the bank's financial performance ratio from the financial statements published every year. 3 ratios are generally used in calculating bank profitability performance by Bank Central Indonesia Circular No. 06/23/DPNP dated May 31, 2004, namely Return On Assets (ROA), Return On Equity (ROE), and Net Interest Margin (NIM). Return on Assets (ROA) can be calculated by comparing net income with total assets owned by the bank (Syafril & Daryanto, 2019). The Return on Assets (ROA) ratio is also called the earnings power ratio, describing the company's ability to generate profits from available resources (Mulyana, 2016)

ROE can be calculated by comparing net income with the total equity owned by the bank (Suhadak et al., 2019). ROE focuses on the ability of bank management to generate profits from managing their own capital or equity (Cordeiro da Cunha Araújo & André Veras Machado, 2018). Net Interest Margin (NIM) is a measure to distinguish between interest income earned by a bank or perhaps a financial institution and the amount of interest paid to lenders (Amalia & Agustriyana, 2020). This is actually similar to the gross margin of non-financial companies, so more careful calculations are still needed. The higher the Net Interest Margin (NIM), the better the performance achieved by a bank, so that the company's profit will increase (Nurullaily, 2016). Increasing company profits is predicted to increase the company's Return on Assets (ROA). Considering its function as an intermediary institution between those who save money and those who borrow money, the main factors that can determine the profitability of a bank are credit and time deposits. Where in the abstinence theory it is emphasized that when a person refrains from using his wealth for himself and fulfills the wishes of others, then he should get a reward from the wealth lent. If it is associated with banking, the reward can be in the form of interest which is the main source of bank income (L. Sari et al., 2020).

Credit distribution has an important role for banks to earn interest, the more loans disbursed, the interest income that will be received by the bank will increase along with the increase in profitability (Widana et al., 2021). One indicator to see the Loan Distribution Rate is the Loan to Deposit Ratio (LDR). LDR is a comparison between the total loans disbursed with third-party funds (TPF) (Y. A. N. Sari & I Mei Murni, 2017). The total credit in question is the provision of loans to parties when (not including credit to other banks). Meanwhile, TPF means savings, current accounts, and time deposits provided by third parties. LDR can show the level of credit expansion carried out by banks, so this ratio can be a benchmark for measuring whether or not the bank's intermediation function is running. In addition to measuring the Loan Distribution Rate, LDR is also related to bank liquidity, where LDR measures the ability of banks to repay withdrawals made by customers by relying on loans provided as a source of liquidity (Sawitri, 2018). The management needs to pay attention to the percentage of the LDR ratio that remains at the safe limit determined by Bank Central Indonesia. Warnayanti & Dewi 92018) state LDR has a positive effect on NIM. While the results of research conducted by Safitri & Mukaram (2018), give the results of LDR having a negative effect on NIM. Meanwhile, the research conducted by Sanny & Dewi (2020) gave the results that LDR had no significant effect on NIM.

The relationship between ROA and changes in earnings shows various results. Tani & Makatita (2019) ROA has a negative effect on profit growth. Atidhira & Yustina (2017) state that the ROA has a negative and significant effect on earnings changes. This indicates that the company is not efficient in managing its assets for the production process so that although the amount of assets is large, it cannot be used optimally so that the sales generated by the company are not able to increase profits. Meanwhile, Rosikah (2018) also explains that the positive influence between ROA and profit growth shows that any increase in the value of ROA, in general, will lead to increased profits for the company, meaning that increasing the company's ability to generate profits will ensure that the company's profit growth will increase because ROA is a ratio that shows how effectively the company operates to generate profits for the company.

The inconsistency of the results of some of the studies above is the background for this research to be continued. The study was conducted using a contingency approach because the differences in the results of previous studies could be solved using a contingency approach, namely by including other variables that are thought to affect the relationship between the Loan Distribution Rate and bank profitability. The variable that is estimated to influence the relationship is the BI Rate.

The BI Rate is an interest rate with a tenor of one month announced by Bank Central Indonesia periodically within a certain period of time which serves as a signal for monetary policy. Furthermore, these interest rates are expected to affect interbank money market rates, deposit and credit rates as well as longer-term interest rates. Bank Central Indonesia issued a new benchmark interest rate, namely the BI 7-Day (Reverse) Repo Rate which has been effective since August 19, 2016, replacing the BI Rate. The BI 7DRR instrument is used as the new policy interest rate because it can quickly affect the money market, banking, and real sector. With the BI interest rate as the reference interest rate that can affect interest rates on deposits and bank loans, it will be able to affect the level of deposit and borrowing of funds by third parties at the bank, as well as affect the amount of interest payments from parties borrowing funds and the amount of interest payments to the bank. the party holding the funds.

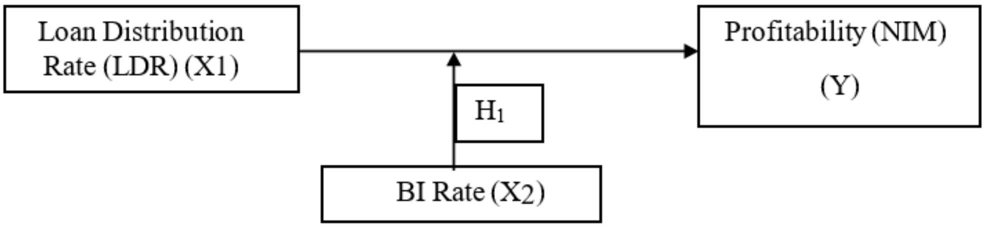

Fig 1: Conceptual framework

The conceptual framework is a logical relationship between the theoretical basis and empirical studies. The theoretical basis in this research consists of a grand theory and a supporting theory. The grand theory of this research is agency theory, while the supporting theory of this research is the theory of attendance, the Loan Distribution Rate, and the BI Rate. The relationship between the Loan Distribution Rate, profitability, and the BI Rate can be explained by agency theory, where banking involves many interested parties including principals, agents, and depositors. The existence of many parties often creates conflicts of interest which can lead to agency problems such as management who is not careful in making decisions to channel depositor funds to debtors to obtain more profits but with higher risks. The risk of the credit being disbursed is borne by the principal. To reduce agency problems, it will cause agency costs that can disrupt the company's financial performance. However, with fewer agency problems, companies can work more optimally to focus on improving their company's performance. The abstinence theory in explaining the relationship between the level of credit distribution, profitability, and the BI Rate can be seen from the receipts and payments of interest made by the company. The company receives interest from the debtor on the funds provided by the company to the debtor. Then on the other hand the company pays interest to depositors on funds deposited in the company. The size of the receipt and payment of interest depends on the interest rate used so that the determination of interest rates can affect the level of bank profitability. then in this study formulate the hypothesis:

H1: The Loan Distribution Rate has a positive effect on profitability

H2: BI Rate affects the relationship between the Credit Distribution Rate and profitability.

II. RESEARCH METHODS

This study uses a quantitative approach in the form of associative. This research was conducted on banking sub-sector companies listed on the Indonesia Stock Exchange (IDX) for the 2016-2020 period. Where the scope of the research chosen in this study is all types of banking listed on the Indonesia Stock Exchange. Profitability is the company's ability to generate profits from all the company's operational activities within a certain period, where profitability is used as a guarantee for the sustainability of the company (Menicucci & Paolucci, 2016). The profitability ratio used in this study is the Net Interest Margin (NIM) because NIM can show the bank's ability to carry out its main activity, namely as an intermediary institution in collecting funds and channeling them back to earn profits in the form of interest from the placement of these funds. Loan Distribution Rate is the amount of credit disbursed by banks to customers from third-party funds that have been collected by banks where in this study the Loan Distribution Rate is measured by the Loan to Deposit Ratio or LDR ratio (Khan et al., 2020) LDR is the ratio of loans given to third-party funds (Current Accounts, Savings, Certificates of Deposits, and Time Deposits). The larger the LDR ratio indicates that the volume of lending at the bank is increasing. If the bank's LDR ratio is at the standard set by Bank Central Indonesia, then the profit earned will increase (assuming the bank can channel its credit effectively). The BI Rate is an interest rate with a tenor of one month announced by Bank Central Indonesia periodically within a certain period of time which serves as a signal for monetary policy. BI Rate is published as a percentage (%). Since August 19, 2016, Bank Indonesia has changed the BI Rate which is announced every month to the BI 7DRR Instrument which is used as the new policy interest rate (Utama & Puryandani, 2020). The interest rates for the 2016-2020 period are as follows:

Table 1: BI Rate Periode 2016-2020

Year	BI Rate (%)
2016	6
2017	4.5625
2018	5.10417
2019	5.625
2020	4.58333

The selection of this research sample is based on a non-probability approach using a purposive sampling method with criteria including companies that are included in the banking sub-sector listed on the Indonesia Stock Exchange from 2016 to 2020 and conventional general banking which presents complete financial statement data regarding the variables to be used in this research, such as the data used to calculate the Loan to Deposit Ratio (LDR) and Net Interest Margin (NIM). In this research, the method used is the non-participant observation method. In this study, the data analysis technique used was simple linear analysis and moderated regression analysis using SPSS to process the data.

III. RESULTS AND DISCUSSION

Moderated regression analysis (MRA) is a regression model by testing the interaction between variables. MRA was chosen in this study to explain the effect of moderating variables in strengthening or weakening the relationship between the independent variable and the dependent variable. The following table 2 shows the results of moderated regression analysis.

Table 2: Test Results of moderated regression analysis

	UnstandardizedCoefficients		StandardizedCoefficients			
Model	**B**	**Std. Error**		**Beta**	**t**	**Sig.**
1	(Constant)	0.042	0.056		1.753	0.053
	X1	0.023	0.065	0.050	3.128	0.024
	X2	0.003	0.009	0.152	0.280	0.780
	X1.X2	0.013	0.011	0.211	2.322	0.048
	R Square : 0.061					
	F-sig. : 0.;025					

The value of the coefficient of determination or R Square is 0.61. This value can be interpreted as 61.0% Loan Distribution Rate has an effect on profitability where the BI Rate is a moderator, while 39.0% is influenced by other variables. The F test value in the sig table is 0.025. The value of sig 0.000 <0.05, as the basis for decision making in the F test, it can be concluded that the Loan Distribution Rate has an effect on profitability where the BI Rate is the moderator. The value of the t-test is 0.005 on the Loan Distribution Rate variable, the value of sig = 0.24. BI Rate variable sig = 0.780. Variable Loan Distribution Rate multiplied by BI Rate value sig = 0.48. So, as the basis for decision making in the t-test, it can be concluded that the Loan Distribution Rate has an effect on profitability where the BI Rate is the moderator. The result of the calculation of the BI Rate variable is not significant while the Loan Distribution Rate variable multiplied by the significant BI Rate can be concluded that the BI Rate variable is a pure moderating variable.

Effect of Loan Distribution Rate on profitability

The first hypothesis (H1) is accepted which states that the Loan Distribution Rate has a positive effect on profitability. The test results using simple linear regression show that credit distribution has a positive coefficient value of 0.029 with a significance level of 0.026 which is smaller than alpha (0.05). The bank's main source of income is from loan interest obtained from lending. Therefore, the Loan Distribution Rate conducted by the bank will greatly determine the amount of income earned by the bank. In agency theory, when the agency problem can be suppressed, this indicates that the conflict of interest between the principal, agent, and depositor has been minimized. This shows that the manager has made the right decision in determining the Loan Distribution Rate using optimal third-party funds with minimized risk to bring in higher profits. If it is associated with the abstinence theory, every loan disbursement made to the debtor should receive a reward in the form of interest. The greater the credit disbursed, the greater the reward obtained so that the profits obtained by the company will increase. The loan Distribution Rate distributed to the public or customers can be seen from the LDR ratio. LDR is the ratio between total credit and total funds raised, the greater the LDR ratio indicates that the volume of lending to the bank is increasing. In a study conducted by Pincur (2018), it was found that LDR had a positive effect on profitability as proxied by NIM.

Effect of the BI Rate on the relationship between the Loan Distribution Rate and profitability

The second hypothesis (H2) is accepted which states that the BI Rate affects the relationship between the Loan Distribution Rate and profitability. The test results using Moderated regression analysis show that the coefficient of determination in the Moderated regression analysis has increased compared to the coefficient of determination in the simple regression analysis. The coefficient of determination in the simple regression is 0.60 while the coefficient of determination in the Moderated regression analysis is 0.61. One of the impacts expected by Bank Central Indonesia after setting the BI benchmark interest rate monetary policy is that the banking sector will follow the benchmark interest rate in setting deposit rates, which will also be followed by changes in lending rates. With a change in the BI Rate, credit and deposit interest rates will also change so that many people will take advantage of this interest rate change according to their respective interests, depositors tend to place more funds in banks when interest rates are high. On the other hand, depositors tend to withdraw their funds when deposit interest rates decline. Meanwhile, debtors will borrow funds when interest rates are low and reduce loans when interest rates are high.

IV. CONCLUSION

The results of the analysis conducted on the Factors Affecting the Value of Mining Sector Companies on the Indonesia Stock Exchange concluded, among others, that the Loan Distribution Rate had a positive effect on profitability in banking sector companies for the 2014-2018 period and the BI Rate on the relationship between Loan Distribution Rate and profitability in companies. banking sector for the period 2014-2018

The results of this study indicate that the Loan Distribution Rate has a positive effect on profitability. The company's stakeholders in using profitability should think about the Loan Distribution Rate. The higher the distribution of credit to the bank will increase profits. The results of this study indicate the BI Rate of the relationship between the Loan Distribution Rate with profitability in the banking sector. The company's stakeholders in seeing the relationship between the Loan Distribution Rate and profitability should look at the BI Rate. The BI Rate is a reference for banks to apply credit interest to banking companies. This study only has an R square value of 61.0%. This study in its independent variable can only explain the effect of the dependent variable of 61.0%. then expected to be able to use other variables in assessing the factors that affect profitability.

REFERENCES

[1] Amalia, S., & Agustriyana, D. (2020). Does the Capital Adequacy Ratio (CAR), Non Performing Loans (NPL), and Net Interest Margin (NIM) Affect the Profitability of Banks ? : Case of Indonesia. *The International Conference on Innovations in Social Sciences and Education*, *1*(1), 517–524.

[2] Andesfa, D., & Masdupi, E. (2019). Effect of Financial Ratio on Profitability of Comercial Banks: A Systematic Literature Review. *Advances in Economics, Business and Management Research*, *64*(1), 700–706. https://doi.org/10.2991/piceeba2-18.2019.55

[3] Atidhira, A. T., & Yustina, A. I. (2017). The Influence of Return on Asset, Debt to Equity Ratio, Earnings per Share, and Company Size on Share Return in Property and Real Estate Companies. *JAAF (Journal of Applied Accounting and Finance)*, *1*(2), 128–146. http://e-journal.president.ac.id/presunivojs/index.php/JAAF/article/download/363/207

[4] Bansal, R., Singh, A., Kumar, S., & Gupta, R. (2018). Evaluating factors of profitability for Indian banking sector: a panel regression. *Asian Journal of Accounting Research*, *3*(2), 236–254. https://doi.org/https://doi.org/10.1108/AJAR-08-2018-0026

[5] Cordeiro da Cunha Araújo, R., & André Veras Machado, M. (2018). Book-to-Market Ratio, return on equity and Brazilian Stock Returns. *AUSP Management Journal*, *53*(3), 324–344. https://doi.org/https://doi.org/10.1108/RAUSP-04-2018-001

[6] Khan, M. A., Siddique, A., & Sarwar, Z. (2020). Determinants of non-performing loans in the banking sector in developing state. *Asian Journal of Accounting Research*, *5*(1), 135–145. https://doi.org/https://doi.org/10.1108/AJAR-10-2019-0080

[7] Ledhem, M. A., & Mekidiche, M. (2020). Economic growth and financial performance of Islamic banks: a CAMELS approach. *Islamic Economic Studies*, *28*(1), 47–62. https://doi.org/https://doi.org/10.1108/IES-05-2020-0016

[8] Menicucci, E., & Paolucci, G. (2016). The determinants of bank profitability: empirical evidence from European banking sector. *Journal of Financial Reporting and Accounting*, *14*(1), 86–115. https://doi.org/https://doi.org/10.1108/JFRA-05-2015-0060

[9] Mulyana, B. (2016). Financial Performance of Foreign Exchange Bank and Non-Foreign Exchange Bank in Indonesia 2012-2016 Periods. *Scholars Journal of Economics, Business and Management (SJEBM)*, *1*(1), 444–453. https://doi.org/10.21276/sjebm.2018.5.6.4

[10] Nurullaily, S. (2016). Analysis of Influence Financial Ratios on Sharia Banking Performance in Indonesia (Empirical Study at Bank Muamalat Indonesia, Bank Syariah Mandiri, and Bank Mega Syariah). *Global Review of Islamic Economics and Business*, *4*(2), 135–159.

[11] Pincur, L. P. (2018). Pengaruh CAR, NPL, BOPO, dan LDR terhadap Net Interst Margin pada Perusahaan Perbankan yang Terdaftar di BEI. *E- Jurnal Manajemen Unud*, *7*(1), 387–411.

[12] Rosikah. (2018). Effects of Return on Asset , Return On Equity , Earning Per Share on Corporate Value. *The International Journal of Engineering and Science (IJES*, *7*(3), 6–14. https://doi.org/10.9790/1813-0703010614

[13] Safitri, A. M., & Mukaram. (2018). Pengaruh ROA, ROE, dan NPM Terhadap Pertumbuhan Laba Pada Perusahaan Sektor Industri Barang Konsumsi Yang Terdaftar di Bursa Efek Indonesia. *Jurnal Riset Bisnis Dan Investasi*, *4*(1), 1.

[14] Sahyouni, A., Zaid, M. A. A., & Adib, M. (2021). Bank soundness and liquidity creation. *EuroMed Journal of Business*, *16*(1), 1. https://doi.org/https://doi.org/10.1108/EMJB-04-2019-0061

[15] Salina, A. ., Zhang, X., & Hassan, O. A. . (2021). An assessment of the financial soundness of the Kazakh banks. *Asian Journal of Accounting Research*, *6*(1), 23–37. https://doi.org/https://doi.org/10.1108/AJAR-03-2019-0022

[16] Sanny, B. I., & Dewi, R. K. (2020). Pengaruh Net Interest Margin (NIM) Terhadap Return on Asset (ROA) Pada PT Bank Pembangunan Daerah Jawa Barat Dan Banten Tbk Periode 2013-2017. *Jurnal E-Bis (Ekonomi-Bisnis)*, *4*(1), 78–87.

[17] Sari, L., Limakrisna, N., & Septiano, R. (2020). Determinant Of Government Bank Performance Through Nim As Intervening. *DIJEFA*, *1*(4), 619. https://doi.org/10.38035/DIJEFA

[18] Sari, Y. A. N., & I Mei Murni, N. S. (2017). Analysis of the effect of third party fund, capital adequacy ratio, and loan to deposit ratio on bank‟s profitability after the application of IFRS. *The Indonesian Accounting Review*, *6*(1), 81. https://doi.org/10.14414/tiar.v6i1.855

[19] Sawitri, N. N. (2018). The Prediction of Third Party Funds, Interest Rates, and Non- Performing Loans toward Loan To Deposit Ratios and Its Impact on Return on Assets on Commercial Banks in Indonesia. *Jurnal Manajemen*, *22*(3), 409. https://doi.org/https://doi.org/10.24912/jm.v22i3.430

[20] Suhadak, S., Kurniaty, K., Handayani, S. R., & Rahayu, S. . (2019). Stock return and financial performance as moderation variable in influence of good corporate governance towards corporate value. *Asian Journal of Accounting Research*, *4*(1), 18–34. https://doi.org/https://doi.org/10.1108/AJAR-07-2018-0021

[21] Syafril, H., & Daryanto, W. M. (2019). Total Asset (IDR Billion). *South East Asia Journal of Contemporary Business, Economics and Law*, *20*(1), 45–57.

[22] Tani, A., & Makatita. (2019). Pengaruh Penyaluran Kredit Dan Kredit Bermasalah Terhadap Profitabilitas Perbankan (Studi Kasus Pada PT.Bank NTT Kantor Pusat). *Journal Of Management (SME's)*, *9*(2), 133–150.

[23] Utama, O. Y., & Puryandani, S. (2020). The Effect of BI Rate, USD to IDR Exchange Rates, and Gold Price on Stock Returns Listed in the SRI KEHATI Index. *Jurnal Dinamika Manajemen*, *11*(1), 39–47. https://doi.org/10.15294/jdm.v11i1.21207

[24] Warnayanti, N. K. A., & Dewi, S. K. S. (2018). Peran Risiko Kredit Dalam Memoderasi Pengaruh Kecukupan Modal, Penyaluran Kredit dan BOPO Terhadap Profitabilitas. *E-Jurnal Manajemen Unud*, *7*(1), 105–133.

[25] Widana, I. W. D., Yasa, G. W., & Suaryana, I. G. N. A. (2021). Effect of CAR, NPL, and BOPO on NIM with ROE as a moderating variable. *International Research Journal of Management, IT and Social Sciences*, *8*(3), 219–227. https://doi.org/10.21744/irjmis.v8n3.1469