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FOREWORD

Alhamdulillah, praise be to Allah Subhanahu Wa Ta'ala for granting us the opportunity to organize and publish the proceedings of the 3nd International Conference on Business and Banking Innovations (ICOBBI) with the topic "*Unlocking New Marketing Strategies on ASEAN After Covid-19 Pandemic*". This proceeding contains several researches articles from many fields in Business & Marketing, Banking & Sharia Banking, Accounting & Financial Management, Human Resources Management, Operations Management, Investasi, Insurance & Capital Market, Strategic Management, Technology Management, and Information System.

The 3nd International Conference on Business and Banking Innovations was held on 6th – 7th March 2021 by virtual (online) meeting and organized by the Master Management Study Program of STIE PERBANAS Surabaya in Collaboration with three Higher Education Institutions in Indonesia and two Universities from Asia countries. Keynote speakers in this conference were: Prof. Jessa Frida T Festijo (Lyceum of the Philippines University), Prof. Krisda Tanchaisak, Ph.D (Ramkhamhaeng University Thailand) and Burhanudin, Ph.D (Head of Undergraduate Program In Management of STIE Perbanas Surabaya, Indonesia).

I would like to give high appreciation to the Rector of STIE Perbanas Surabaya for his support at this event. Acknowledgments and thank you to all the steering and organizing committees of the ICOBBI for the extra ordinary effort during the conference until this proceeding published. Thank you very much to all presenter and delegates from various Universities. Beside it, I would like to express our gratitude to the three universities, namely Universitas 17 Agustus Surabaya, STIE 66 Kendari, Institut Institut Bisnis dan Keuangan Nitro Makassar which has been the co-host of this event.

Hopefully, the proceeding will become a reference for academics and practitioners, especially the business and banking industry to get benefit from the various results of the research field of Business and Banking associated with Information Technology. Proceedings also can be accessed online on the website https://pascasarjana.perbanas.ac.id.

Chair of the Master Management Study Program
STIE Perbanas Surabaya

Prof. Dr. Tatik Suryani, M.M.

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The Effect of Internal and External Factors of Non Performing Loan at National Private Commercial Banks (Go Public) in Indonesia from 2016-2020

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ABSTRACT

This study aims to examine and analyze the effects of Bank Size, Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Inflation, Gross Domestic Product, and BI Rate to Non Performing Loan (NPL). Case study on Private Commercial Banks listed on Indonesia Stock Exchange in period 2016-2020. The variables used are internal and external factor of bank. Internal factors are included Bank Size, CAR, LDR and external factors are included Inflation, Growth of Gross Domestic Product, BI Rate. This study is a quantitative research using panel data regression analysis with the study period from 2016 to 2020. Estimation model used Random Effect Model (REM). The object of this study was 20 banks as sample by using purposive sampling technique. The result of this study concluded that Bank Size, CAR, Growth of Gross Domestic Product, BI Rate has a negative effect on NPL. While LDR and Inflation has a positive effect on NPL.

Keywords: *Non Performing Loan (NPL), Bank Size, Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Inflation, Gross Domestic Product, BI Rate.*

1. INTRODUCTION

The banking sector has a strategic role in the economy of a country. Both macro and micro, good or poor economy condition of a country, influenced by banking sector. Bank is a business entity whose main function is as a financial intermediary, namely collecting funds from the public (savings, deposito, giro) and channeling these funds back to the public in the form of loan.

Most banks in Indonesia still use loan as their main income to finance their operations. In fact, not all disbursed loans are free of risk, some of loans have a considerable risk and can threaten the health of bank. In their business of lending, banks are faced with default by loan borrowers that result in Non Performing Loan (NPL). NPLs create problems for the banking sector's balance sheet on the asset side, and have a negative impact on the income statement as a result of provisioning for loan loses.

Prediction of the factor of NPL can be seen from several factors, which are including internal and external factors of bank. Internal factors of banks are included Bank Size, Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR). While the external factors can be seen from macro economic condition such as inflation, the growth of Gross Domestic Product, and Interest Rate (BI Rate).

Research by Alexandri (2015) and Yulianti (2018) states that bank size has a negative effect on NPLs. However, both studies are in contrast to research by Maude (2014), Rajha (2016), and Suryanto (2015) which show that bank size has a positive effect on NPLs.

Research conducted by Alexandri (2015) and Suryanto (2018) shows that the CAR variable has a positive influence on the NPL ratio. This means that the increasing capital owned by the bank will be followed by an increase in non-performing loans at the bank. However, this is not in line with the results of research conducted by Yulianti (2018) and Messai (2013) where the results of both studies indicate that CAR has a negative effect on NPLs.

Research by Maude (2017), Yulianti (2018), and Suryanto (2015) shows that LDR has a positive effect on NPL. This means that the higher the LDR ratio, the NPL ratio will also increase. However, the results of this study contradict Koju's (2018) research which shows that LDR has a negative effect on NPL.

Research conducted by Alexandri (2015), Khan (2018), Maude (2017), and Kumarashinge (2017) shows that there is a positive influence between inflation on NPLs. This means that if the inflation rate of a country increases, the NPL ratio in a bank will also increase. However, this research is not in accordance with the research conducted by Haniifah (2015) and Rajha

(2016). In this study, inflation has a negative correlation with the NPL of a bank

Khan's (2018) research examines the effect of macroeconomic variables, namely GDP on the NPL of commercial banks in Pakistan. The results of this study indicate that GDP growth has a significant negative relationship to NPL. This means that with GDP growth, the ability of debtors to repay their loans to banks increases. This research is supported by research conducted by Messai (2013), Rajha (2016), and Koju (2018) which shows a negative correlation between GDP growth and NPLs. However, this study is not in line with Kumarashinge's (2017) research which shows that the GDP growth variable has a significant positive correlation to NPL.

Research by Messai (2013) and Rajha (2016) shows that interest rates have a positive correlation with NPL levels. Meanwhile, research conducted by Haniifah (2015) and Maude (2017) shows that interest rates have a negative effect on NPLs. The results showed that the increase in interest rates did not encourage debtors to delay loan payments. This indicates that the debtor remains committed and has a responsibility to fulfill his loan obligations even though macroeconomic conditions have decreased.

As the description above, due to inconsistencies in the results of previous research (research gap), it is necessary to re-test empirically regarding the factors that influence the occurrence of NPL. Researchers took research samples from all Go Public National Private Commercial Banks in Indonesia for the period 2016 to 2020. The sampling of BUSN Foreign Exchange banking companies was based on the consideration of data access needed in the research as well as the level of NPLs in BUSN which fluctuated from 2016- 2020.

2. LITERATURE REVIEW, THEORITICAL FRAMEWORK, AND HYPOTHESIS DEVELOPMENT.

2.1 LITERATURE REVIEW

2.1.1 Non Performing Loan (NPL)

Non-performing loans are a situation where the customer or debtor is unable to pay part or all of their obligations to the bank as agreed. Each bank must be able to manage its credit properly in providing credit to the public and in repaying credit in accordance with the applicable terms and conditions so as not to cause non-performing loans. (Ismail, 2010:226).

Non-performing loans are assets that do not generate income. A loan is considered problematic when the principal or principal interest is due and has not been paid for ninety days or more.(Greuning, 2011:153)

The smaller the NPL ratio, the smaller the credit risk borne by the bank. Banks in channeling credit must analyze the ability of debtors to repay their obligations. After the credit is granted, the bank is obliged to monitor the use of credit and the ability and compliance of the debtor in fulfilling their obligations. The bank reviews and engages collateral to minimize credit risk. For the NPL ratio, Bank Indonesia has determined a maximum of five percent.

2.1.2 Bank Size

Bank Size is defined as the size of a bank. Bank Size is obtained from the total assets owned by the bank. In a banking company, to find out the size of the company, you can see the total amount of assets owned. The assets owned by the bank consist of cash, placements with other banks, marketable securities, channeled financing, investments, prepaid expenses, fixed assets, leased assets, other assets.

2.1.3 Capital Adequacy Ratio (CAR)

Capital Adequacy Ratio is capital adequacy which shows the bank's ability to maintain sufficient capital and bank management's ability to identify, measure, supervise and control risks that arise and can affect the amount of bank capital. (Kuncoro, 2011:519)

CAR ratio aims to ensure that the bank can reduce losses arising from the activities carried out. The well-known regulatory ratio is the minimum ratio of eight percent. CAR connects bank capital with the risk weight of assets owned. CAR is based on the principle that every investment that carries a risk must be provided with a large amount of capital at a certain percentage (risk margin) of the total investment.

2.1.4 Loan to Deposit Ratio (LDR)

Loan to Deposit Ratio (LDR) is a ratio used to measure the composition of the volume of credit extended by banks compared to the amount of third party funds kept by the bank.

LDR is a traditional measurement that shows time deposits, current accounts, savings, etc. used in fulfilling a customer's loan application. This ratio is used to describe the extent to which savings will be used to provide loans. In other words, the amount of funds used to provide loans is funds that come from deposits of customers. (Latumaerissa, 2014:96)

The greater the LDR ratio, the less good liquidity in the bank. This is because the amount of funds needed to finance credit is getting bigger. As a result, the risk of non-performing loans can increase because bank liquidity is disrupted. A high LDR indicates that a bank lends most of its third party funds into credit which can provide profit to the bank. Meanwhile, a low LDR ratio indicates a liquid bank because the bank has excess funds that should be ready to be channeled into credit. In Bank Indonesia Regulation Number 15/15/PBI/2013 regulates the safe limit for a bank's LDR ratio, namely a lower limit of LDR of 78 percent and an upper limit of 92 percent.

2.1.5 *Inflation*

Inflation is defined as a general and continuous increase in prices within a certain period of time. An increase in the price of one or two goods alone cannot be called inflation unless it extends (or results in price increases) to other goods. Inflation is the tendency of prices to increase continuously. Apart from occurring continuously, price increases can be called inflation if the price increases cover all types of goods. (Latumaerissa, 2017:53).

2.1.6 *Gross Domestic Product*

One important indicator to determine economic conditions in a country in a certain period is Gross Domestic Product (GDP), both at current prices and at constant prices. GDP is basically the amount of added value generated by all business units in a particular country, or the total value of final goods and services produced by all economic units.

GDP shows the total value of income earned in economic activity and total expenditure in the economic production of goods and services. (Mankiw, 2018:48).

2.1.7 *BI Rate*

The Bank Indonesia benchmark interest rate or BI Rate is a policy interest rate that reflects the monetary policy stance or stance set by Bank Indonesia and announced to the public. From this understanding, it is clear that the BI Rate functions as a signal of Bank Indonesia's monetary policy, thus it can be concluded that the monetary policy response is expressed in terms of an increase, decrease, or no change in the BI Rate.

With the BI Rate, Bank Indonesia hopes to provide stimulus to banking institutions to follow the scenario set by Bank Indonesia. For example, by lowering the BI Rate, Bank Indonesia (BI) hopes that banking institutions will lower deposit and credit interest rates. Vice versa, if Bank Indonesia (BI) raises the BI Rate, banking institutions are expected to also raise deposit and credit interest rates. Lower bank lending rates will facilitate the provision of stimulus in the form of credit loans to the public. That way, it will generate public interest in taking loans from banks.

In accordance with Bank Indonesia Regulation Number 18/12/PBI/2016 concerning monetary operations, Bank Indonesia is strengthening the monetary operations framework by implementing a new benchmark interest rate or policy rate, namely the BI 7-Day (Reverse) Repo Rate, which has been in effect since 19 August 2016, replacing the BI Rate. The BI 7-day (Reverse) Repo Rate instrument is used as the new policy rate because it can quickly influence the money market, banking and real sectors. The BI 7-Day Repo Rate instrument as a new reference has a stronger relationship to money market interest rates, is transactional or traded on the market, and encourages financial market deepening, particularly the use of the repo instrument.

2.2 *HYPOTHESIS*

2.2.1 *Effect of Bank Size on NPL*

The Bank Size ratio is the total assets owned by the bank concerned when compared to the total assets of other banks. Assets are also called assets. The greater the assets or assets owned by a bank, the greater the volume of credit that can be distributed by the bank. The greater the volume of credit provides an opportunity for the bank to reduce the spread rate, which in turn will lower the lending rate (credit interest) so that the bank will be more competitive in providing services to customers who need credit. Low interest rates on credit can spur investment and promote improvement in the economic sector. Low credit interest rates also facilitate credit payments, thereby reducing the number of credit congestion.

The research of Alexandri and Santoso (2015) stated that the larger the bank size (Bank Size), the smaller the level of Non-Performing Loans. This research is also supported by research by Yulianti (2015) which shows a negative correlation between Bank Size and NPL. Based on the explanation above, the following hypothesis can be taken :

H_1 : Bank Size has a negative effect on Non Performing Loans

2.2.2 *Effect of CAR on NPL*

Capital Adequacy Ratio (CAR) is a bank capital ratio that shows the bank's ability to provide funds for business development needs and accommodate the risk of loss of funds caused by bank operational activities. It can be said that the large CAR ratio will increase bank confidence in lending. So that the use of this ratio is to measure the ability of internal funds to cover the possibility of bad credit risk.

The greater the value of this ratio, the easier it will be for banks to finance risk-bearing assets. Lending, which is one of the main activities of a bank, certainly has risks that can affect the health of the bank. The higher the credit distributed, the greater the risk that might arise. Therefore, every bank has a reserve of funds or capital to anticipate the credit risk. When the capital of a bank increases, the more available funds will be available to cover the risk of bad credit. So that it will have an impact on a bank's non-performing loan ratio or NPL to decline.

As stated by Maude(2017), that CAR has a negative effect on the ups and downs of NPLs. The results of this study are in line with research conducted by Yulianti (2018) and Koju (2018) which shows a negative correlation between CAR and NPL. From this explanation, the following hypothesis can be taken:

H_2: CAR has a negative effect on Non Performing Loans

2.2.3 Effect of LDR on NPL

The LDR ratio is the ratio between the amount of funds distributed to the public (credit) and the amount of deposits collected by the bank. LDR shows how far a bank uses savings funds to provide loans to its customers. The large amount of third party funds collected by the bank is directly proportional to the amount of credit extended. This means that the more funds collected by the bank, the greater the credit channeled.

The higher the LDR value, the higher the volume of credit extended by the bank and will also lead to a higher risk of NPLs occurring in a bank. This indicates that the LDR has a positive effect on NPL. This means that the higher the LDR, the higher the NPL ratio. On the other hand, the lower the LDR ratio, the lower the NPL ratio.

This is in accordance with research conducted by Maude (2017), Yulianti (2018) and Suryanto (2015) which state that LDR has a positive influence on NPL. So that it can be concluded the following hypothesis:

H_3: LDR has a positive effect on Non Performing Loans

2.2.4 Effect of Inflation on NPL

Inflation is an increase in prices in general and continuously over a certain period of time. Inflation disrupts economic stability by undermining future forecasts (expectations) of economic actors. From the company side, when there is inflation, where the price increases continuously, it will have an impact on the company, namely the increase in production costs required by the company to carry out operational activities. The company has no other option but to meet these needs in order to keep operational activities running. The increase in production costs caused the company's ability to repay its obligations to the bank to decrease, resulting in bad financing and ultimately an impact on the increase in bank NPLs.

Meanwhile, from the individual perspective of society, when there is inflation, people's purchasing power will decrease due to inflation. This has resulted in a decrease in the real income of the community so that the standard of living of the community has also decreased. Before an increase in inflation occurs, a debtor is still able to pay credit installments at the bank, but after inflation, prices have increased quite high, while the debtor's income does not increase, the debtor's ability to repay his loan will weaken because most of his income is already used to meet household needs as a result of rising prices for goods and services.

This is supported by research conducted by Khan (2018), Maude (2017), and Kumarashinge (2017) which shows that inflation has a positive correlation to the NPL level of a bank. Based on the explanation above, the hypothesis can be described as follows;

H_4: Inflation has a positive effect on Non-Performing Loans

2.2.5 Effect of GDP on NPL

GDP is basically a form of measuring a country's national income. GDP can be used as an indicator of a country's economic condition. When the economy is experiencing growth, the average income of the people will also increase. So that the savings rate can also increase. In this case the debtor will fulfill his commitment to pay his obligations to the bank. However, when the economy is in crisis, consumption will increase due to rising prices and scarcity of goods in the market and lowering the level of public saving due to concerns over banking institutions.

In accordance with the theory of the Business Cycle or business cycle, fluctuations in the level of the GDP economy experience changes starting from a period of expansion, prosperity, recession, and depression. GDP that is during an expansionary period occurs an increase in aggregate demand which will cause many business actors or companies to apply for credit at banks in an effort to meet market demand. This can increase the income of business actors or companies, and can affect the smoothness of credit payments so that the NPL ratio decreases. In addition, when GDP is in a recession where there is a decline in sales and company revenue, it will affect the company's ability to repay its loans. Due to the increase in the prices of goods and services caused by the economic crisis, debtors who were previously able to pay their loans to banks have difficulty repaying their loans. This will cause an increase in non-performing loan outstanding.

This is in accordance with the conclusions of studies conducted by Haniifah (2015), Khan (2018), Messai (2013), Rajha (2016), and Koju (2018). The five studies indicate that a country's GDP growth has a negative correlation with NPLs. Based on this description, the following hypotheses can be concluded:

H_5: GDP has a negative effect on NPL

2.2.6 Effect of BI Rate on NPL

The BI Rate is an indicator of monetary policy in Indonesia. In addition, the SBI is an instrument of market operation policy that affects the circulation of money. In general, Bank Indonesia will raise the BI Rate if future inflation is estimated to exceed the predetermined target, on the other hand, the BI Rate will be lowered if future inflation is estimated to be below the predetermined target. When the BI Rate increases, banks will also raise their deposit interest rates. With an increase in deposit interest rates, the costs incurred by banks to collect third party funds will also increase, so that the cost of bank funds for interest expenses will increase. If this happens, banks will also raise interest rates on their credit loans, so that the ability of debtors to fulfill their credit obligations decreases and leads to greater problem loans.

As the results of research from Messai (2013) and Rajha (2016) which concluded that the higher the interest rate, the higher the NPL level, so the following hypothesis can be taken:

H_6: BI Rate has a positive effect on NPL

Based on the descriptions that have been discussed in the previous sub-chapter, a framework of thought in this study can be formulated as follows:

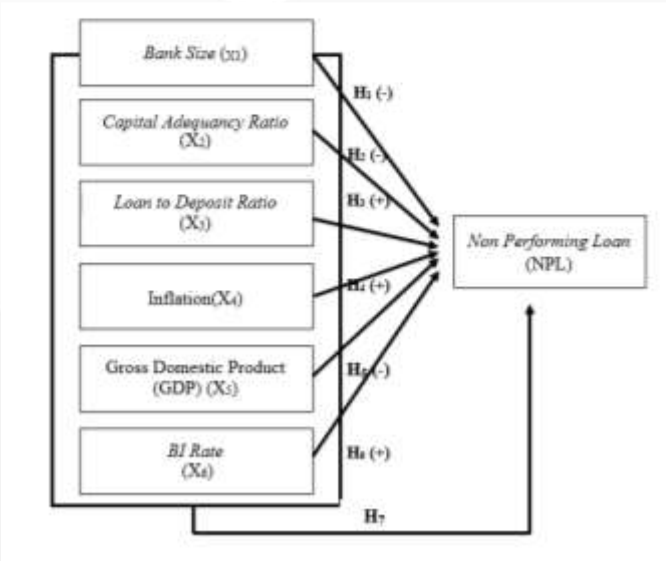

Figure 1
Research Framewok

3. RESEARCH METHODOLOGY

The study employed non-survey reseacrh design. Based on the level of explanation, the method used in this research is quantitative method.

In terms of data sources, this study uses secondary data in the form of data obtained from the Central Statistics Agency (BPS), Bank Indonesia, and bank financial reports published by the Financial Services Authority (OJK) from 2016 to the second quarter of 2020.

This study focuses on the independent variables, namely Bank Size, Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Inflation, Gross Domestic Product, and BI Rate. While the dependent variable is the Non Performing Loan (NPL).

Population in this study were all banks listed on the Indonesia Stock Exchange during the period 2016-2020. Sampling was carried out by purposive sampling method, namely the sampling technique based on the criteria set in accordance with the research objectives. Based on predetermined criteria, there are 20 private national foreign exchange banks that can be sampled in this study.

In order to investigate the determinants on NPL, this study used panel data regression approach using E-Views 9.0 program. Panel data combines both time series and cross section data, which is proper for the research data set as it includes 5 years (2016-2020) and 20 banks (cross-section).

The formulation of the panel data regression equation model in this study is as follows:

$$Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3\,it} + \beta_4 X_{4\,it} + \beta_5 X_{5\,it} + \beta_6 X_{6\,it} + e_{it}$$

Where :

Y = NPL

X1 = Bank Size

X2 = CAR

X3 = LDR

X4 = Inflation

X5 = PDB

X6 = BI Rate

β1- β6 = The coefficients representing the various independent variables

e = The error term which is assumed to be normally distributed with mean zero and constant variance

4. EMPIRICAL RESULT

In this study, a panel data regression model was tested using the Chow test, Hausman test and Lagrange Multiplier test. Of the three tests, it shows that the REM method is more appropriate to use in this study. The results of data processing output for the regression model are as follows:

Table 1. Panel Data Regression Result

Variable	Coefficient	t-Statistic	t-table
C	0,0609	2,5862	1,65
Bank Size	-0,0023	-1,8856	
CAR	-0,0380	-3,1227	
LDR	0,0097	2,1249	
Inflasi	0,0005	0,0053	
PDB	-0,0054	-0,2814	
BI Rate	-0,0023	-0,0469	
F Statistic	2,7266		
Prob F Statistic	0,0133		
R Squared	0,4429		
Adjusted R-Squared	0,2804		

Based on the results above, the panel data regression equation data is obtained as follows:

$$Y = 0.0609 - 0.0023X1 - 0.0380X2 + 0.0097X3 + 0.0005X4 - 0.0054X5 - 0.0023X6$$

3.1 *T-test*

The t test is used to determine the effect of each independent variable used in this study on the dependent variable. Based on Table, the results of the partial influence test with t table of 1.65, testing the independent variables with the dependent variable are as follows :

3.1.1 The Effect of Bank Size on NPL

Based on the analysis of panel data for the variable bank Size, the t value of -1.8856 is smaller than the t table value of -1.65, so it can be concluded that the bank size partially has a significant effect on NPL with a negative relationship direction, so the first hypothesis in this study acceptable.

3.1.2 The Effect of CAR on NPL

Based on panel data analysis for the Capital Adequancy Ratio (CAR) variable, the tcount value of -3.1227 is smaller than the t table value of -1.65, so it can be concluded that partially CAR has a significant effect on the direction of the negative relationship. So it can be concluded that the second hypothesis in this study can be accepted

3.1.3 The Effect of LDR on NPL

Based on panel data analysis for the LDR variable, the t value of 2.1249 was obtained, greater than the t table value of 1.65, so it can be concluded that partially LDR has a significant effect on NPL with a positive direction, meaning that the third hypothesis in this study is acceptable

3.1.4 The Effect of Inflation on NPL

Based on the analysis of panel data for the inflation variable, the t value of 0.0053 is obtained which is smaller than the t table value of 1.65, it can be concluded that inflation partially does not have a significant effect on NPL with a positive direction of relationship, so it can be concluded that the fourth hypothesis in this study is rejected.

3.1.5 The Effect of GDP on NPL

Based on panel data analysis for the gross domestic product (PDB) variable, the tcount value of -0.2814 is greater than the t table value of 1.65, so it can be concluded that GDP partially does not have a significant effect on NPL with a negative relationship, so this research was rejected

3.1.6 The Effect of BI Rate on NPL

Based on panel data analysis for the Bi Rate variable, the t value of -0.0469 is greater than the t table value of 1.65, so it can be concluded that the BI Rate partially has no significant effect on Non-Performing Loans (NPL) with a negative relationship direction, so that It can be concluded that the sixth hypothesis in this study is rejected

3.2 *F-test*

Based on the results of the F test, the value of F-Statistic is 2.726672, and the Probability value (F-Statistic) is 0.013319. From these results the probability value is smaller than the significant level (0.013319 <0.05). So it can be concluded that Bank Size, Capital Adequancy Ratio (CAR), Loan To Deposit Ratio (LDR), inflation, Gross Domestic Product (GDP) and BI Rate simultaneously have a significant effect on Non-Performing Loans (NPL) at National Foreign Exchange Private Commercial Banks. Go Public in Indonesia Period 2016 to 2020.

3.3 *Coefficient of Determination (R^2)*

From Table 1, The coefficient of determination can be seen in the R-Square value of 0.4429 or 44.29 percent, meaning that all independent variables are Bank Size, Capital Adequancy Ratio (CAR), Loan To Deposit Ratio (LDR), inflation, Gross Domestic Product and BI. The rate simultaneously or collectively is able to provide an explanation for the Non Performing Loan (NPL) variable of 44.29 percent. While the remaining 55.71 percent is explained by other factors or variables not examined in this study.

4. CONCLUSION

The study attempted to investigate the internal and external factors of NPLs at Foreign Exchange Commercial Banks in Indonesia. Based on the findings in this study, it can be concluded that Bank Size, CAR, GDP, and BI Rate have a negative impact on Non Performing Loan at National Foreign Exchange Private Commercial Banks Go Public in Indonesia Period 2016 to 2020. While, Loan to Deposit Ratio (LDR) and Inflation have a positive impact on Non Performing Loan at National Foreign Exchange Private Commercial Banks.

The greater the assets owned by a bank, the greater the volume of credit that can be distributed by the bank. Banks with large assets tend to have better access to sources of funding, thus requiring lower capital ratios than small banks. In addition, large banks are better able to manage and diversify risks into various products so that they have a lower risk compared to banks with small assets. Bank credit portfolios that have large assets are more diversified or not only concentrated in certain sectors. When a bank can manage its credit portfolio so that it is properly diversified, it will be able to reduce the credit risk that arises.

Based on the Moral Hazard theory, when the capital ratio of a bank is low, the bank tends to be more willing to take credit risk on its loan portfolio by charging high interest to low-quality borrowers. If the credit is successful, the bank will enjoy the benefits, but if the credit fails or is problematic, the "Lembaga Penjamin Simpanan" (LPS) will bear the refund of the customer. So it can be said that if the capital ratio of a bank is low, it will increase the ratio of non-performing loans to the bank which is caused by the tendency of banks to take risks in providing credit.

An LDR that exceeds the regulatory limit from the government indicates that the bank is able to provide greater credit than the third party funds received by the bank so that it has the potential to increase the profit that the bank will receive because the bank lends all its funds (loan up) to the debtor. The large volume of credit will also increase the risk of NPLs occurring in a bank. Because the risk when a bank distributes all of its funds in the form of credit is greater than the placement of funds in other assets such as placements with BI, placements with other banks and securities. This indicates that the LDR has a positive effect on NPL

During the period from the first quarter of 2016 to the second quarter of 2020 did not show any variation in the value of inflation in Indonesia. Based on the descriptive analysis previously described, the inflation rate in Indonesia tends to be stable during the study period. So it can be said that debtors who have loans still fulfill their commitment to repay their credit to the bank in accordance with the predetermined credit agreement because there is no significant increase in inflation or the prices of goods and services in that period tend to be stable.

When the economy is growing and banks are expanding their lending, banks tend to ignore the principle of prudence, which in turn results in an increase in NPLs. Meanwhile, when GDP is in a recession condition where there is a decrease in sales and company income, the company delays or does not take credit for its business so that banks do not expand credit and tend to apply the principle of prudence in providing credit because of the downturn in economic conditions. The results in this study indicate that GDP does not affect the NPL ratio. During the study period, the GDP value tended to be stable or there was no variation in data. This condition indicates that the economy during the study period tended to be stable or did not experience a decline. So that the effect of GDP on NPL is not significant.

The negative and insignificant effect of the BI Rate is because interest rates in 2016 to the second quarter of 2020 showed a downward trend, causing the NPL ratio to decline. This shows that interest rates do not encourage borrowers to delay loan payments. This indicates that the debtor remains committed and has a responsibility to fulfill his loan obligations

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