

## Analysis Of Factors Influencing Non-Performing Loans

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### Abstract

The bank is an intermediary between parties needing funds and those with excess funds. The bank's main activity is channelling funds in the form of credit to parties who need funds. Credit distribution has a credit risk that arises when creditors cannot fulfil obligations according to the agreed time. Credit risk can be calculated using the Non-Performing Loan (NPL) ratio. This study aims to determine the effect of CAR, BOPO, LDR, ROA and LAR on NPL at PT. Bank Mandiri in 2001-2019. This research is a quantitative descriptive study, using multiple linear regression analysis techniques. The research object of PT. Bank Mandiri with saturated sampling technique. The results showed that CAR, BOPO, LDR, and LAR have no effect on NPL. Meanwhile, ROA has a negative effect on NPL.

**Keywords:** Financial ratio, Non-Performing Loan, Return on assets

### INTRODUCTION

The financial sector plays a role in every economic activity, economic transactions will run smoothly with a strong and stable financial sector so that transaction costs can be reduced. The stability and strength of the financial sector also plays an important role during an economic crisis in minimizing the economic pressures it faces (Suhendra, 2017). Banking, insurance, financing institutions, securities companies are some of the industries that are included in the financial sector which are listed on the Indonesia Stock Exchange (Edusaham, 2020).

Banks have an important role in the people's economy, banks serve in providing smooth circulation of public money, both as a place to borrow and a place to deposit money (As-Safitri, 2018). Banks are used as financial intermediaries between parties who have excess funds and those who need funds (Ahmadi, Amin, & Madi, 2019). The main activity of the bank is channeling funds to parties who need funds in the form of credit which will also be one of the main sources of income for the bank (Suli, Suwendra, & Suwarna, 2018). The bank will benefit from the interest charged by the bank in the process of extending credit to the community (Ahmadi, Amin, & Madi, 2019).

The size of lending will affect bank profits. If the bank is able to collect large amounts of public funds, but it is not in proportion to the loans disbursed, the bank will not benefit from charging interest on lending. (Sri & Rahayu, 2018). However, lending also carries many risks, even though its activities are a contributor to the bank's income. This occurs because lending is a calculation of a future outcome whose nature of future events is beyond human control (Suhardi, 2006).

Loans that have been channeled to the community can be paid off to the bank according to the agreed time, but there are also obstacles in repayment that occur or are not smooth. This non-performance can be classified as non-performing loans (Ahmadi, Amin, & Madi, 2019). Non-performing loans are classified into 3 types, namely, substandard loans, namely loans that have been in arrears for a long time between 91 and 120 days, then there are doubtful loans, which are loans that are in arrears between 121 and 180 days, and the last one is bad credit, which has more than arrears. of 180 days (Hadijah, 2016). Bad credit occurs when the debtor is unable to pay off his loan to the creditor according to the agreed time. For this reason, it is important for bank



management to conduct a credit analysis in order to find out the feasibility of prospective customers in paying off their obligations. This step is expected to be able to minimize the number of bad loans so that the bank concerned avoids losses so that the banking business will continue to survive and develop (Fitriadi, 2017).

The development of a good bank will also have a good effect on the country's economic growth, the bank can act as a distributor of funds to customers who need it for investment or working capital which is expected to increase development in various sectors. For the government, credit distribution will increase tax revenue from profits earned by banks through this credit distribution, and if the credit received by customers is used to form new business units, it will open new jobs and reduce unemployment. (Hariyadi, 2012). This did not happen in the period 1997-1998 when the monetary crisis occurred so that Bank Indonesia had to close 16 failed banks under the *International Monetary Fund* *progra*. (Ichsan, 2018). After the closure of the 16 banks, a crisis of confidence began, and the public began withdrawing large amounts of funds

The crisis in the 1997-1998 period occurred due to the weakening of the rupiah exchange rate against the US dollar, which initially averaged Rp. 2,450 then jumped to Rp. 4,650. The crisis was also caused by the ratio of non-performing loans. The increase in non-performing loans was caused by the high level of lending which was carried out without proper supervision and regulation, as a result of the Pakto 88 policy which facilitated the opening of new banks (Kevin, 2018).

In order to prevent the collapse of the Indonesian banking system, the government is trying to stabilize and reform. To restore public confidence, the government carried out a financial and real reconstruction signed by the IMF, then a new policy emerged through the guarantee program, namely guaranteeing the payment of all bank obligations to depositors and creditors. In the midst of these stabilization and reform efforts, the government wants the country to have a bank that can develop independently, according to the government, Bank Indonesia must be accompanied by strong and healthy commercial banks so that BI will also be stronger, from there the idea of merging state-owned banks emerged. There were 4 state-owned banks that were merged, namely Bank Dagang Negara, Bank Bumi Daya, Bank Export Indonesia, and Bank Pembangunan Indonesia to become Bank Mandiri. Bank Mandiri was officially formed in the midst of the economic crisis, namely on October 2, 1998 (Gumiwang, 2018).

The next economic crisis occurred in 2008, when one of the largest investment banks in America, namely Lehman Brothers, went bankrupt. The bankruptcy of Lehman Brothers caused a decline in share prices of up to 93%, and resulted in a decline in the Dow Jones Industrial Average (DJIA) stock market points by up to 300 points. The London, Paris and Indonesia stock indices also experienced a decline as a result of the fall of Lehman Brothers which triggered the global financial crisis (Syafina, 2020).

International Monetary Data (IMF) in 2019 stated that the world economy in 2019 was in the worst growth conditions since the global economic crisis. The IMF stated that world economic growth would only reach 3%, down from July 2019 which was originally 3.2%. The IMF accused that one of the reasons for the decline in economic growth was the trade war (IMF, 2019). The trade war occurred between America and China, where America provided policies such as banning immigrants, reducing taxes, limiting exports and imports, and tariff policies. These policies had a negative impact on the Chinese economy, because China could no longer export its products due to the high export-import tariffs. This policy also triggered China's revenge action to boycott American products in their country. Changes in US policy are also applied to countries that cooperate with America, including Indonesia (Tanaya, 2019).

Banking will be indirectly affected by this trade war. The trade war will make coal and iron commodities fall, due to reduced demand from China for these goods. As a result, it will affect the decline in exports and people's purchasing power, as well as affect the workforce. It is feared

that companies that handle these goods will have difficulty paying off their loans to banks, so that bank non-performing loans will gradually increase which will also affect the profitability of the bank itself (Setiaatmadja, 2018).

Bad credit or non-performing loans can be measured by *the Non-Performing Loan (NPL) ratio*. NPL is a bank loan with the condition that the debtor fails to make scheduled payments for a certain period of time (Florensia, Safitri, & Kardinal, 2018). NPL is one indicator of bank health. Data on Indonesian banking is presented in indicators of the Indonesian banking sector (Ahmadi, Amin, & Madi, 2019). The data presented includes:

1. Loans Provided Minimum Capital Adequacy Ratio (KPPM)
2. *Return on Assets (ROA) Ratio*
3. *Operating Expenses - Operating Income (BOPO)*
4. *Net Interest Margin (NIM) Ratio*
5. *Loan to Deposit Ratio (LDR)*
6. *Commercial Bank Assets*
7. *Non-Performing Loans (NPL)*

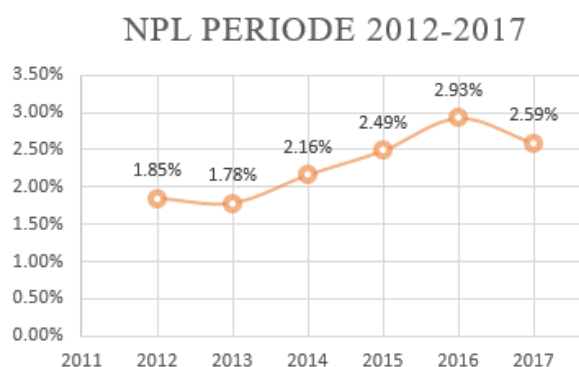


Figure 1. NPL Level of Commercial Banks for the Period 2005-2017  
Source: Financial Services Authority Performance Report 2012-2017

Figure 1 shows an increase in the NPL ratio from 2012 to 2017, even though the increase in the ratio is still below 5%, which means that the bank's performance is still relatively good, but the increase in the NPL ratio from year to year is not good. An increase in the NPL ratio should be avoided and minimized as best as possible because this phenomenon affects the income of the bank itself. To be able to avoid and fix it, of course you have to understand the cause first. Therefore, further analysis is needed regarding the factors that influence NPLs.

According to (Florensia, Safitri, & Kardinal, 2018) NPL values can also be influenced by other banking sector indicators, one of which is BOPO. Another indicator that affects the value of NPL is ROA, but different from this, according to (Margaretha & Kalista, 2016) states that BOPO and ROA have no effect on NPL. According to another factor that affects NPL (Nugraha, 2021) is LDR, but (Pinasti, 2018) another opinion is that the size of the LDR does not affect NPL. (Maisarah, 2015) stated that other factors that could affect the value of NPL were CAR and LAR. This was different from the opinion (Amir, 2019) which stated that CAR and LAR had no effect on NPL.

Based on research phenomena and differences, the purpose of this study was to determine the effect of BOPO, LDR, CAR, LAR, ROA on NPL, as well as to demonstrate the ability of the independent variables to explain the dependent variable. The research object used is PT Bank Mandiri.

Development of a research model as follows:

- a. Effect of CAR (*Capital Adequacy Ratio*) on NPL (*Non-Performing Loan*)



The Financial Services Authority (OJK) classifies commercial banks into 4 categories based on their core capital, including business activity commercial banks (BUKU) I, II, III, and IV. In the RPOJK for Commercial Banks, OJK explained that banks will be grouped into four categories of Bank Groups Based on Core Capital (KMBI). The new draft is still in the process of seeking responses from relevant associations and the public until January 15, 2021. KMBI 1 is for banks with core capital of less than IDR 6 trillion, KMBI 2 is for banks with core capital of IDR 6 to IDR 14 trillion. Then, KMBI 3 for banks with core capital of Rp. 14 trillion to Rp. 70 trillion and KMBI 4 for banks with core capital of more than Rp. 70 trillion (Intan, 2021). A bank must have funds or capital that has been prepared to accommodate the risk of loss due to credit problems. CAR (*Capital Adequacy Ratio*) is a ratio that can represent the bank's capital. CAR can show assets financed with own capital that contain the risk of loss (Frida, 2020).

The higher the CAR value means that the bank's ability to prevent losses is greater, so that non-performing loans will also decrease, based on research (Maisarah, 2015) which states that if the CAR value increases, the NPL value decreases and vice versa, so the authors take the hypothesis

**H<sub>1</sub>: CAR (*Capital Adequacy Ratio*) has a negative effect on NPL (*Non-Performing Loans*)**

- b. Effect of BOPO (Operating Expenses on Operating Income) on NPL (*Non-Performing Loans*)

In dealing with the Covid-19 pandemic, banks must be smarter at maintaining efficiency. The Financial Services Authority (OJK) noted that the efficiency ratio, namely operating expenses and operating income (BOPO), had increased to 88.84% by industry as of March 2020. This position was much higher than the March 2019 period of 82.92% or an increase of 5.92 % on an annual basis. This position is also the highest since the end of 2008, when BOPO touched the industry level of 88.59% (Waluyo, 2020). BOPO is a ratio that measures the efficiency of a bank's performance by comparing operating expenses and operating income. Bank operational expenses include expenses incurred to pay interest to depositors in fundraising activities. Meanwhile, operating income is obtained from interest derived from credit activities. This ratio also measures the efficiency of a bank's performance in carrying out its operations. The efficiency of operational activities is very important for a bank because it can increase profits (Akbar, 2019). The lower the BOPO value indicates the bank is able to manage its operational expenses efficiently. Based on research (Amir, 2019) which states that BOPO has a positive effect on NPL, the authors take the hypothesis

**H<sub>2</sub>: BOPO (Operating Expenses Against Operating Income) has a positive effect on NPL (*Non-Performing Loans*)**

- c. Effect of LDR (*Loan to Deposit Ratio*) on NPL (*Non-Performing Loan*)

Credit distribution tends to slow down due to the Covid-19 pandemic even until the end of 2020. This makes the banking credit to *deposit ratio* (LDR) increasingly lax. The Financial Services Authority (OJK) noted that as of September 2020, the LDR for commercial banks reached 83.46%, much lower than at the end of 2019 which had touched 94.43%. The state-owned bank has an LDR of 83.82% as of September 2020, a decrease from the previous year's period of 95.59%. While the LDR of conventional private banks was recorded at 80.98% (Hidayat, 2020). LDR is a ratio that compares the amount of credit extended to the receipt of all funds from third parties. This ratio shows the bank's ability to meet loan needs using time deposits, demand deposits, savings and others (Hariyani, 2010). The higher the value of this ratio, it means that more funds are obtained from third parties which allow banks to extend more credit. The more credit extended, the greater the possibility of non-performing loans. In accordance with research (Nugraha, 2021) which states that the NPL ratio increases in line with the increase in the LDR ratio, the authors take the hypothesis

**H<sub>3</sub>: LDR (*Loan to Deposit Ratio*) has a positive effect on NPL (*Non-Performing Loans*)**

- d. Effect of ROA (*Return on Assets*) on NPL (*Non-Performing Loans*)

Due to the economic slowdown due to the Covid-19 pandemic, banks' ability to generate profits this year has also weakened. This can actually be seen from the profitability ratios such as the banking *Return on Assets* (ROA) which continues to slope. Data from the Financial Services Authority (OJK) show that as of May 2020 the banking industry's ROA was at the level of 2.08%. This position has decreased from the last May 2019 period which was still in the range of 2.61%. Not only that, compared to previous years, the ROA position in May 2020 was arguably the lowest (Mahadi, 2020). One of the profitability ratios is ROA. ROA shows the level of a bank's ability to obtain profitability. ROA is a ratio that measures a bank's ability to generate profits and utilize its assets (Arifin, 2009). The higher the ROA, the higher the profit generated, meaning that the profit derived comes from interest from lending activities. Profits from high credit distribution can mean that credit smoothness is high (Ismail, 2018). Based on research (Ahmadi, Amin, & Madi, 2019), if the ROA value increases, the NPL value will decrease, if the ROA value decreases, the NPL value will increase, so the authors take the hypothesis.

**H<sub>4</sub>: ROA (Return on Assets) has a negative effect on NPL (Non-Performing Loans)**

- e. Effect of LAR (*Loan to Asset Ratio*) on NPL (*Non-Performing Loan*)

The Covid-19 pandemic made economic conditions unstable and affected bank credit expansion. Bank credit was recorded to have contracted by 2.28% to a value of IDR 5,553 trillion in October 2020. Despite the contraction, in fact banking assets were still growing significantly, namely there was a growth of 5.97% from IDR 8,562 trillion at the end of 2019 to IDR 8,562 trillion (Mahadi, 2020). LAR (*Loan to Asset Ratio*) is a ratio that compares the amount of credit and total assets owned. LAR shows the bank's ability to meet credit requests using its assets (Maisarah, 2015). The greater the credit disbursed, the higher the LAR ratio, thereby increasing non-performing loans.

**H<sub>5</sub>: LAR (Loan to Asset Ratio) has a positive effect on NPL (Non-Performing Loans)**

The research model can be described as follows:

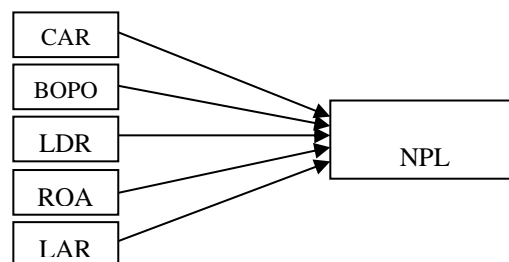


Figure 2. Research Model

## RESEARCH METHOD

This research is a type of quantitative descriptive research, namely descriptive research aims to describe a phenomenon systematically regarding the nature and facts or the relationship between variables that are owned (Hamdi & Bahrudin, 2015). Based on the type of data this research includes quantitative research. Quantitative research is research in which data collection, data interpretation, and research results require the use of numbers (Siyoto & Sodik, 2015).

The following is the operational definition of the variables in this study:

Table 1. Variable Operational Definition

No	Variable	Definition	Indicator	Scale
1	Non-Performing Loans	The ratio that measures the level of non-performing loans at (Nugraha, 2021) Margaretha, Vanya, & Kalista banks (2016); Astrini, Suwendra, and Suwarna (2018)	$NPL = \frac{Kredit\ Bermasalah}{Total\ Kredit} \times 100\%$	Ratio
2	Capital Adequacy Ratio	The ratio that shows the ability to provide funds to bear the risk of loss (Astrini, Suwendra, & Suwarna, 2018) Astrini, Suwendra, & Suwarna (2018); Iryanto & Tatmimah (2018)	$CAR = \frac{Modal}{ATMR} \times 100\%$	Ratio
3	Operating Expense Against Operating Income	Measuring the level of bank efficiency in its operations (Amir, 2019).	$BOPO = \frac{Biaya\ Operasional}{Pendapatan\ Operasional} \times 100\%$	Ratio
4	Loan to Deposit Ratio	The ratio used to measure credit with funds from third parties (Astrini, Suwendra, & Suwarna, 2018).	$LDR = \frac{Kredit}{Dana\ Pihak\ Ketiga} \times 100\%$	Ratio
5	Return on Assets	The ratio that shows the level of profit through its assets (Yahya & Cahyana, Determinan Audit Report Lag (Studi Empiris Pada Perusahaan LQ-45 Tahun 2014-2018), 2020), (Yahya & Saepul, The influence of current ratio, total debt to total assets, total assets turn over, and return on assets on earnings persistence in automotive companies, 2020).	$ROA = \frac{Laba\ Sebelum\ Pajak}{Rata - Rata\ Total\ Aset} \times 100\%$	Ratio
6	Loan to Asset Ratio	The ratio that measures credit extended by banks through assets (Amir, 2019).	$LAR : \frac{Total\ Kredit}{Total\ Aset}$	Ratio

The research sample is PT Bank Mandiri with the research period 2001-2019. Data collection uses secondary data which can be accessed through Bank Mandiri's official website. The analytical methods used include the multiple linear regression method, the classical assumption test, and the coefficient of determination test.

Multiple linear regression testing which is a research analysis method used to test whether there is influence of the independent variable and the dependent variable expressed in mathematical form. Multiple linear regression is a form of linear regression analysis that has more than one independent variable (Purnomo, 2017). The multiple linear regression equation is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Description:

Y = NPLs

$\alpha$  = Constant

$\beta_{1-6}$  = Regression Coefficient

$X_1$  = CAR

$X_2$  =BOPO

$X_3$  =LDR

$X_4$  =ROA

$X_5$  =LAR

e = errors

## RESULTS AND DISCUSSIONS

Descriptive statistics are used to describe research variable data, namely *Non Performing Loans (NPL)*, *Capital Adequacy Ratio (CAR)*, *Operating Expenses and Operating Income (BOPO)*, *Loan to Deposit Ratio (LDR)*, *Return on Assets (ROA)*, and *Loan to Asset Ratio (LAR)*. These variables are interpreted using the minimum, maximum, average ( *mean* ), and standard deviation values. The following is a table of research descriptive statistics:

Table 2. Descriptive Statistics of Research Variables

Information	CAR	BOPO	LDR	ROA	LAR	NPLs
Minimum	14.7	65.0	25.3	0.5	16.1	1.6
Maximum	27.7	95.0	95.5	3.6	64.9	25.3
Means	20,563	75,232	67,226	2,663	47,532	6.137
Standard Deviation	4.3141	9.7425	20.4075	0.8687	15.0821	5.9115

Source: SPSS 22, data processed

Based on table 2, the average value of Bank Mandiri's NPL in the last 19 years showed 6.13%, the highest value was 25.3% which was achieved in 2005, the lowest value was 1.6% which was achieved in 2013, and the standard deviation was 5.91%. The average value of Bank Mandiri's CAR in the last 19 years showed 20.53%, the highest value was 27.7% which was achieved in 2003, the lowest value was 14.7% which was achieved in 2010, and the standard deviation was 4.31%. Bank Mandiri's BOPO average value in the last 19 years showed 75.23%, the highest value was 95% which was achieved in 2005, the lowest value was 65% which was achieved in 2014, and the standard deviation was 9.74%. The average value of Bank Mandiri's LDR in the last 19 years showed 67.22%, the highest value was 95.5% which was achieved in 2015, the lowest value was 25.3% which was achieved in 2001, and the standard deviation was 20.40%. Bank Mandiri's average ROA value in the last 19 years shows 2.6%, the highest value is 3.6% which was achieved in 2014, the lowest value is 0.5% which was achieved in 2005, and the standard deviation is 0.86%.

Bank Mandiri's average ROA value in the last 19 years shows 47.53%, the highest value is 64.9% which was achieved in 2019, the lowest value is 16.1% which was achieved in 2001, and the standard deviation is 15.08%.

The classical assumption test uses the normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test. The results of the classical assumption test show that the research data meets the criteria. The following is a summary of the classical assumption test results:

Table 3. Classical Assumption Test Results

Information	Test results	Conclusion
Normality test	Asymp value sig (2 tailed) 0.200 > 0.05	Normal distributed data
Multicollinearity Test	VIF value > 10	There is no multicollinearity
Heteroscedasticity Test	Glacier test significant value > 0.05	There is no hetoscedasticity
Autocorrelation Test	DW value 2.317 > du 2 0226	There is no autocorrelation

Table 4. Test Results t

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	std. Error			
1	(Constant)	64,012	38,685		1,655	.122
	CAR	-.298	.674	-.218	-.442	.666
	BOPO	-.309	.273	-.509	-1,131	.279
	LDR	.225	.629	.777	.358	.726
	ROA	-8,534	2,897	-1,254	-2,946	011
	LAR	-.440	.940	-1,121	-.467	.648

Source: SPSS 22, data processed

Hypothesis testing using multiple linear regression tests:

$$Y = 64.012 - 0.298CAR - 0.309BOPO + 0.225LDR - 8.534ROA - 0.440LAR + e$$

This equation can be explained that a constant of 64.1 means that if the CAR, BOPO, LDR, ROA, and LAR are 0 (zero), then the NPL is 64.1. The regression coefficient CAR( $X_1$ ) -0.298, meaning that if the other independent variables have a fixed value and NPL increases by 1%, then NPL will decrease by 0.298. The regression coefficient of BOPO( $X_2$ ) is -0.309, meaning that if the other independent variables have a fixed value and NPL increases by 1%, then NPL will decrease by 0.309. The regression coefficient of LDR( $X_3$ ) is 0.225, meaning that if the other independent variables have a fixed value and NPL increases by 1%, then NPL will increase by 0.225.

The regression coefficient ROA( $X_4$ ) -8.534, meaning that if the other independent variables have a fixed value and NPL increases by 1%, then NPL will decrease by 8.537. The regression coefficient LAR( $X_5$ ) is -0.440, meaning that if the other independent variables have a fixed value and NPL increases by 1%, then NPL will decrease by 0.440.

Table 5. Determinant Coefficient Test Results

odel	quare	ljusted R Square	l. Error of the Estimate
1	.893 <sup>a</sup>	.798	.720
			3.1288



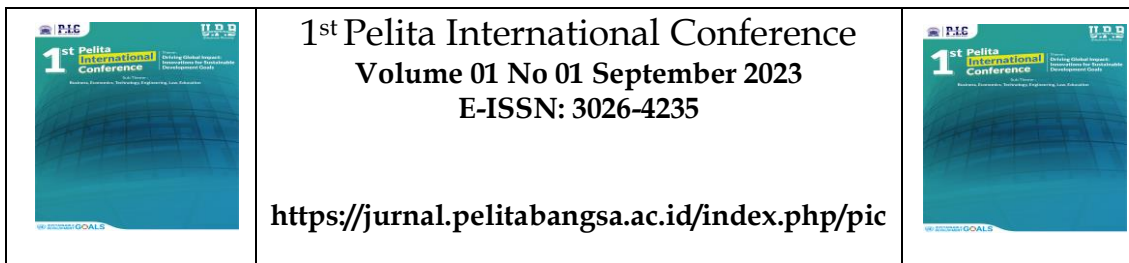


Table 5 describes the results of the test for the coefficient of determination of 0.72, which means that the variables CAR, BOPO, LDR, ROA, and LAR are able to explain the NPL variable by 72%. As much as 18% is explained by variables outside the research variables.

## CONCLUSION

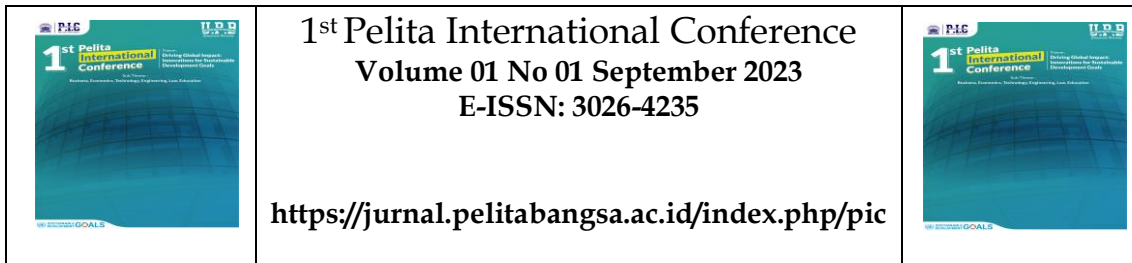
NPL is the ratio of the total credit with substandard, doubtful and loss credit quality to total credit. The NPL condition that occurred at PT Bank Mandiri was included in the healthy category. Factors that affect NPL in this study are CAR, BOPO, LDR, ROA and LAR. According to the research results of all variables, only ROA has a negative effect on NPL, this shows that NPL conditions are strongly influenced by the level of profit where higher profits will reduce the level of NPL. Meanwhile, CAR, BOPO, LDR, and LAR variables have no effect on NPL. The ability of all independent variables to explain NPL is 72% and the remaining 18% is influenced by other variables outside the research variables.

## References

- Ahmadi, K. A., Amin, M., & Madi, R. A. (2019, Juli 5). Pengaruh Makro Ekonomi dan Fundamental Bank Terhadap Non Performing Loan (Studi Pada Bank Umum Swasta Nasional Devisa yang Terdaftar Di Bursa Efek Indonesia Periode 2012-2016). *INA-Rxiv Papers*, 1-15. Retrieved from Silmiikaffah.wordpress.com: <https://silmiikaffah.wordpress.com/2013/07/05/bank-sebagai-perantara-keuangan/>
- Akbar, T. (2019). *Kajian Kinerja Profitabilitas Bank pada Perspektif Bank Umum Berdasarkan Kegiatan Usaha (BUKU)*. Ponorogo: Uwais Inspirasi indonesia.
- Amir, F. D. (2019). Analisis Rasio Keuangan Perbankan yang Mempengaruhi Non Performing Loan (NPL) Periode 2015-2017 (Studi Kasus Pada Bank Umum Konvensional yang Terdaftar di Bursa Efek Indonesia). *Jurnal Riset Mahasiswa Manajemen*, 5(1).
- Arifin, Z. (2009). *Dasar-Dasar Manajemen Bank Syariah*. Jakarta: Pustaka Alvabet.
- As-Safitri, C. (2018, April 6). *Faktor-Faktor yang Mempengaruhi Non Performing Loan*. Retrieved from Kompasiana.com: <https://www.kompasiana.com/chamdahsafitri/5ac6df5aab12ae72cf2bc793/fungsi-perbankan-dalam-perekonomian>
- Astrini, K. S., Suwendra, I., & Suwarna, I. (2018). Pengaruh CAR, LDR, dan bank size terhadap NPL pada lembaga perbankan yang terdaftar di Bursa Efek Indonesia. *Jurnal Manajemen Indonesia*, 6(6), 9-16.
- Edusaham, T. (2020, Maret 28). *Faktor-Faktor yang Mempengaruhi Non Performing Loan*. Retrieved from edusaham.com: <https://www.edusaham.com/2019/04/perusahaan-sektor-keuangan-yang-terdaftar-di-bei.html>
- Fitriadi, F. (2017, Januari 12). *Faktor-Faktor yang Mempengaruhi NPL*. Retrieved from kreditpedia: <https://www.kreditpedia.net/analisis-kredit/>
- Florensia, D., Safitri, E., & Kardinal. (2018). Pengaruh Capital Adequacy Ratio, Loan to Deposit Ratio, Net Interest Margin, dan Beban Operasioanal terhadap Pendapatan Operasional terhadap Non Performing Loan pada Bank Umum Konvensional Go Public. *Jurnal MDP*, 1-6.
- Frida, C. V. (2020). *Manajemen Perbankan*. Yogyakarta: Garudhawaca.
- Gumiwang, R. (2018, Oktober 2). *Bank Mandiri Lahir dari Keruwetan Krisis 1998*. Retrieved from Tirto.id: <https://tirto.id/bank-mandiri-lahir-dari-keruwetan-krisis-1998-c3bp>



- Hadijah, S. (2016, September 23). *Faktor Faktor yang Mempengaruhi NPL*. Retrieved from cermati.com: <https://www.cermati.com/artikel/penggolongan-kualitas-kredit-dan-cara-menghindari-kredit-macet>
- Hamdi, A. S., & Bahruddin, E. (2015). *Metode Penelitian Kuantitatif Aplikasi dalam Pendidikan*. Yogyakarta: Deepublish.
- Hariyadi, M. (2012, April 5). *Faktor-Faktor yang Mempengaruhi Non Performing Loan*. Retrieved from Wordpress.com: <https://h3r1y4d1.wordpress.com/2012/04/05/peranan-perbankan-dan-perekonomian-indonesia/>
- Hariyani, I. (2010). *Restrukturisasi dan Penghapusan Kredit Macet*. Jakarta: Gramedia.
- Hidayat, K. (2020, Desember 15). *Keuangan/Bank*. Retrieved from Kontan: <https://keuangan.kontan.co.id/news/kredit-mulai-menggeliat-ldr-perbankan-bakal-berangsur-naik-lagi>
- Ichsan, F. (2018, September 24). *Faktor-Faktor Mempengaruhi Non Performing Loan*. Retrieved from Bisnis.com: <https://finansial.bisnis.com/read/20180924/90/841481/1998-vs-2018-menengok-krisis-ekonomi-dari-kacamata-perbankan>
- IMF. (2019, Oktober 16). *Faktor - Faktor yang Mempengaruhi Non performing Loan*. Retrieved from Kompas.com: <https://money.kompas.com/read/2019/10/16/190000926/imf--pertumbuhan-ekonomi-dunia-terburuk-sejak-krisis-keuangan-global>
- Intan, N. (2021, Januari 8). *Ekonomi*. Retrieved from Republika: <https://www.republika.co.id/berita/qmlt1d383/4-bank-ini-miliki-modal-inti-paling-banyak>
- Ismail. (2018). *Manajemen Perbankan: Dari Teori Menuju Aplikasi*. Jakarta: Prenamedia Group.
- Kevin, A. (2018, Mei 22). *Faktor-Faktor yang Mempengaruhi Non Performing Loan*. Retrieved from cncdindonesia.com: <https://www.cnbcindonesia.com/market/20180522165847-17-16080/krisis-1998-bisa-terulang-cek-dulu-kesehatan-bank>
- Mahadi, T. (2020, Agustus 11). *Keuangan/Bank*. Retrieved from Kontan: <https://keuangan.kontan.co.id/news/profabilitas-bank-tertekan-ini-kata-bankir-1>
- Maisarah, S. (2015). Determinan Makroekonomi dan Spesifik Bank terhadap Kredit Macet Perumahan di Indonesia. *Jurnal Ilmiah Mahasiswa FEB Universitas Brawijaya*, 1-10.
- Margaretha, F., & Kalista, V. (2016). Faktor yang mempengaruhi non performing loan pada Bank di Indonesia. *Jurnal Kesejahteraan Sosial*, 3(1).
- Nugraha, N. M. (2021). Impact of Non-Performing Loans, Loan to Deposit Ratio and Education Diverstiy on Firm Performance of Indonesia Banking Sectors. . *Review of International Geographical*, 11(3).
- Pinasti, W. F. (2018). Pengaruh CAR, BOPO, NPL, NIM dan LDR terhadap profitabilitas bank umum periode 2011-2015. *Nominal: Barometer Riset Akuntansi dan Manajemen*, 7(1), 126-142.
- Purnomo, R. A. (2017). *Analisis Statistik Ekonomi dan Bisnis dengan SPSS*. Ponorogo: Wade Group.
- Setiaatmadja, J. (2018, Juli 9). *Faktor Faktor yang Mempengaruhi NPL*. Retrieved from inews.id: <https://www.inews.id/finance/keuangan/perang-dagang-as-china-bca-pastikan-pengaruh-sektor-perbankan>
- Siyoto, S., & Sodik, M. A. (2015). *Dasar Metodologi Penelitian*. Yogyakarta: Literasi Media Publishing.
- Sri, K. N., & Rahayu, M. (2018). PENGARUH GPengaruh GDP, Inflasi, BI Rate, Nilai Tukar Terhadap Non Performing Loan Bank Umum Konvensioanl di Indonesia (Studi pada Bank Umum Konvensional yang Terdaftar di Bursa Efek Indonesia Periode 2012-2016). *Jurnal Administrasi Bisnis (JAB)*, 87-96.
- Suhardi, G. (2006). Resiko Dalam Pemberian Kredit Perbankan. *Jurnal Hukum Projustitia*, 96-111.



- Suhendra, I. d. (2017). Pengaruh Internediasi Perbankan Terhadap Pertumbuhan Ekonomi Indonesia. *Tirtayasa Ekonomika*, 1-27.
- Suli, A. K., Suwendra, I. W., & Suwarna, I. K. (2018). Pengaruh CAR, LDR, dan Bank Size terhadap NPL pada Lembaga Perbankan yang Terdaftar di Bursa Efek Indonesia. *Bisma: Jurnal Manajemen*, 34-41.
- Syafina, D. C. (2020, September 15). *Faktor-Faktor yang mempengaruhi NPL*. Retrieved from Tirto.id: <https://tirto.id/kebangkrutan-lehman-brothers-yang-memicu-krisis-ekonomi-global-cyM>
- Tanaya, I. (2019, Mei 27). *Faktor-Faktor yang Mempengaruhi NPL*. Retrieved from kompasiana.com: <https://www.kompasiana.com/www.inatanaya.com/5cebd11395760e770364ac12/perang-dagang-amerika-serikat-dan-china-berdampak-pada-perekonomian-indonesia?page=all>
- Waluyo, C. A. (2020, Juni 8). *Keuangan/Bank*. Retrieved from Kontan: <https://keuangan.kontan.co.id/news/makin-boros-rasio-efisiensi-perbankan-sentuh-level-tertinggi-sejak-2008>
- Yahya, A., & Cahyana, D. (2020). Determinan Audit Report Lag (Studi Empiris Pada Perusahaan LQ-45 Tahun 2014-2018). *Akuntansi Dewantara*, 4(2), 146-159.
- Yahya, A., & Saepul, H. (2020). The influence of current ratio, total debt to total assets, total assets turn over, and return on assets on earnings persistence in automotive companies. *Journal of Accounting Auditing and Business*, Vol 3(1).