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ANALYSIS OF THE INFLUENCE OF CAMELS FACTORS ON PROFITABILITY AT PT. BANK MANDIRI (PERSERO) TBK

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Abstract

This research aims to determine the effect of the CAMELS ratio on the financial profitability of PT. Bank Mandiri (Persero) Tbk. This research uses CAMELS ratios, namely Capital Adequacy Ratio (CAR), Non Performing Loans (NPL), Interest Expenses to Total Loans (IETTL), Net Interest Margin (NIM), Operational Costs to Operating Income (BOPO), Loan to Deposit Ratio (LDR) and Net Open Position (PDN) on financial profitability as measured using Return On Assets (ROA) and Return On Equity (ROE). The research sample was selected using purposive sampling. The statistical test tool is SPSS 26 which is carried out using the classic assumption test and multiple linear regression analysis. The research results show that Capital Adequacy Ratio (CAR), Interest Expense to Total Loan (IETTL), Net Interest Margin (NIM), Loan to Deposit Ratio (LDR) have a positive effect on Return on Assets (ROA). Non-Performing Loans (NPL), Operational Costs to Operating Income (BOPO), Net Open Position (PDN) have a significant and negative effect on Return on Assets (ROA). Meanwhile, Interest Expense on Total Loans (IETTL), Net Interest Margin (NIM) have a positive effect on Return on Assets (ROA). Capital Adequacy Ratio (CAR), Non-Performing Loans (NPL), Operational Costs to Operating Income (BOPO), Loan to Deposit Ratio (LDR) and Net Open Position (PDN) have a negative effect on Return on Assets (ROE).

Keywords: ***Profitability, CAMELS, Capital, Assets, Management, Earning, Liquidity, Sensitivity to Market Risk***

INTRODUCTION

The world of banking is an institution that plays a very important role in a country's economy (especially in the field of economic financing). Banking is everything that concerns banks, including institutions, business activities, as well as methods and processes for carrying out business activities. (Kasmir, 2014:24). Financial performance can be seen from the ratios in the financial reports, one of which is the profitability ratio. Profitability Ratios are ratios that show the amount of profit earned by a company in a certain period. This ratio is used to assess how efficiently company managers can seek profits or profits for each sale made. One measure used to see profitability ratios is Return On Assets (ROA) and Return On Equity (ROE). Return on Assets (ROA) focuses on the company's ability to obtain earnings from company operations, while Return on Equity (ROE) measures the return obtained from the company owner's investment in the business (Mawardi, 2005). Both can be used to measure the magnitude of financial performance in the banking industry.

Analysis of banking financial reports can help business people, both the government and other users of financial reports, in assessing the financial condition of a company, including banking companies. To assess banking financial performance, five assessment aspects are generally used, namely CAMELS (Capital, Assets, Management, Earning, Liquidity, Sensitivity to Market Risk). The Capital aspect includes CAR, the Asset aspect includes NPL, the Management aspect includes IETTL, the Earning aspect includes NIM and BOPO, the Liquidity aspect includes LDR, the Sensitivity to Market Risk aspect includes Net Open Position (PDN). This aspect is assessed using financial ratios. This shows that financial ratios can be used in assessing and analyzing the financial condition of banking companies. In this research, the company chosen was PT Bank Mandiri (Persero) Tbk. Along with the acceleration of economic recovery, Bank Mandiri is optimistic about its performance growth. Bank Mandiri has prepared a Corporate Plan for the 2020-2024 period which will be a reference for Bank Mandiri's business growth in the next 5 (five) years, with the aim of "Spirit to Prosper the Country". However, along the way, Bank Mandiri was faced with various business challenges. 2016, which was initially expected to be a year of accelerated domestic economic recovery, has again become a year full of challenges as global developments have not yet recovered.

Based on data from www.bareksa.com accessed May 21 2023, until June 2016, Bank Mandiri's profit fell 28.6% yoy from IDR 9.92T to IDR 7.08T. The decrease in profit was mainly due to an increase in reserve costs from IDR 4T to IDR 9.9T in anticipation of the risk of increasing non-performing loans. The decline in Bank Mandiri's profitability was exacerbated by the increase in the level of non-performing loans (NPL). In June 2016, Bank Mandiri's gross NPL rose from 2.43% to 3.86%. Bank Mandiri's NPL contributor came from commercial credit at 6.69%, followed by small business credit at 4.95%, micro credit at 4.12%, consumer at 1.87% and corporate at 1.72%, which in total reached IDR 20.44 trillion. Contributors to non-performing loans come from the commodity sector, such as coal.

Furthermore, from 2020 to 2023, Bank Mandiri is faced with challenges with contracting economic conditions as a result of the COVID-19 pandemic. The COVID-19 pandemic conditions since 2020 have had a significant impact on PT's performance. Bank Mandiri (Persero) Tbk as a whole, is in line with weak domestic demand and banking prudence.

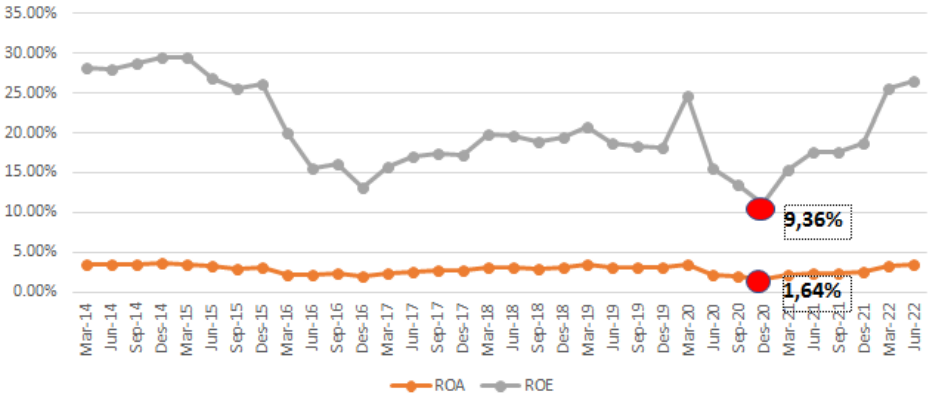

Figure 1. ROA and ROE Ratio Values at PT. Mandiri Bank
Source: https://bankmandiri.co.id/web/ir/quarterly-financials

In December 2020, Return on Equity (ROE) was 9.36% while Return on Assets (ROA) was 1.64%. The low value of this ratio is caused by the global economy experiencing great pressure throughout 2020 due to the Covid-19 pandemic. If we look at the influencing factors, the Net Interest Margin (NIM) ratio in December 2020 was the lowest value throughout 2014-2022, reaching 4.48%. This is because interest income from credit has decreased in line with the weakening of credit that occurred during the Covid-19 pandemic and the implementation of the credit restructuring program as an effort to improve debtors who have the potential to experience difficulties in fulfilling their obligations. In addition, in the face of declining banking NIM, Bank Mandiri is prioritizing the use of costs for initiatives that provide added value and support business growth in the midst of the COVID-19 pandemic which has an impact on decreasing company performance, resulting in a bank only efficiency ratio (Cost Efficiency Ratio/ CER) increased to 45.72% and the ratio of Operating Expenses and Operating Income (BOPO) also increased by 80.03%.

Banking industry credit growth throughout 2020 experienced a contraction of 2.40% due to the economic impact of the COVID-19 pandemic. On the other hand, high uncertainty causes an increase in people's tendency to save. This has led to a significant increase in the growth of third party funds (DPK) in banking in 2020 to 11.10% compared to the growth in third party funds (DPK) in 2019 which was only 6.50%. The high growth in deposits amidst decreasing demand for credit has resulted in looser liquidity, as shown by the significant decrease in the Loan to Deposit Ratio (LDR) from 96.37% at the end of 2019 to 82.95% at the end of 2020.

Various focused strategic initiatives have been carried out throughout 2020, including through the implementation of restructuring for debtors affected by COVID-19, strict monitoring in providing new credit, improving the portfolio mix towards healthier sector growth, gradual improvement in asset quality, improving infrastructure and business processes, increasing HR capabilities in the credit sector, as well as improving policies and procedures. In an effort to prevent an increase in NPL (early warning signal), Bank Mandiri monitors credit quality through a watchlist mechanism to analyze debtor conditions using a number of parameters based on 3 (three) pillars (Business Prospects, Debtor Performance, and Repayment Ability). So that the analysis of watchlist debtors can always be comprehensive and precise, the Bank reviews the watchlist parameters periodically based on lessons learned from debtors who have high risk potential or based on an evaluation of the latest credit quality portfolio developments.

If you look at the consistency between the financial ratio BOPO and ROA and ROE above, there is a dynamic trend where the BOPO value is high, then the ROA and ROE values are low. This is due to the company's operational costs being quite high, thus affecting profits. The same thing is also shown in the consistency between the NPL ratios. The higher the NPL value, the ROA and ROE ratio decreases. Meanwhile, the dynamics of the CAR, NPL, IETTL, NIM, LDR and PDN ratios fluctuate every year.

LITERATURE REVIEW

Return Of Assets (ROA)

Measuring company performance uses profitability. The profitability ratio used is Return Of Assets (ROA)

Return Of Equity (ROE)

Measuring company performance uses profitability. The profitability ratio used is Return Of Equity (ROE)

Capital Adequacy Ratio (CAR)

The Capital Factor is an assessment based on the capital owned by a bank. The ratio used is the Capital

Adequacy Ratio (CAR)

Non Performing Loans (NPL)

The Asset Quality factor is an assessment based on the quality of the assets owned by the bank. The ratio used is Non Performing Loans (NPL)

Interest Expenses to Total Loan (IETTL)

Management factors that show the ability of bank management to identify, measure, monitor and control risks that arise through its policies and business strategies to achieve targets. The ratio used is IETTL

Net Interest Margin (NIM)

The Earnings Ratio, which is an assessment of the profitability ratio, includes an assessment of several factors, including its ability to generate profits. The ratio used is NIM

Operational Costs to Operational Income / BOPO

The Earning Factor, which is an assessment of the profitability ratio, includes an assessment of several factors, including its ability to generate profits. The ratio used is BOPO

Loan to Deposit (LDR)

The Liquidity Factor aims to measure how liquid a bank is. The ratio used is Loan to Deposit (LDR)

Net Deviation Position (PDN)

The Sensitivity To Market Risk factor aims to measure the risk of potential losses arising from exchange rate movements in the opposite market when the Bank has an open position. The Bank manages exchange rate risk by monitoring and managing PDN in accordance with internal limits and Bank Indonesia regulations.

RESEARCH METHOD

Types of research

This type of research is quantitative research. Quantitative research emphasizes the existence of variables as research objects and these variables must be defined in the operational form of each variable and understanding from outside.

Research Location and Time

This research was conducted at a banking company, namely PT Bank Mandiri (Persero) Tbk. The data used in this research is secondary data in the form of time series data on bank financial reports published on the bank's official website: https://bankmandiri.co.id/web/ir/quarterly-financials and the Indonesian stock exchange, website www.idx.co.id. The reporting period is taken in quarters from 2014 – 2022 or 36 periods.

Data Types and Sources

The data used in this research is secondary data. Secondary data in this research comes from collecting information presented in quarterly reports published through the bank's official website.

RESULTS AND DISCUSSION

Multiple Linear Regression Test Results

Table 1 ROA Multiple Regression Test Results

Coefficientsa

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	6,009	,524		11,465	,000
	CAR	.018	.021	,058	,841	,407
	NPLs	-.171	,065	-.227	-2,630	.014
	IETTL	,001	,027	,003	,050	,960
	NIM	,351	,048	,328	7,309	,000
	BOPO	-.071	,006	-.834	-11,553	,000
	LDR	,001	,005	.014	,264	,794
	PDN	-.072	.013	-.280	-5,634	,000

a. Dependent Variable: ROA

Source: secondary data processed, SPSS

Based on the table above, the multiple linear regression equation in this research is:

Y1 =6,009+ 0,018 X1 - 0.171 X2 + 0.001 X3 + 0.351

Or ROA =6,009+ 0,018 CAR - 0.171 NPL + 0.001 IETTL + 0.351 NIM - 0.071BOPO + 0.001LDR - 0.072PDN

The regression equation above can be explained based on each coefficient as follows:

1) A constant of**6,009;**meaning that if X1, X2, X3, X4, X5, X6,**6,009**
2) The CAR regression coefficient value is +**0,018,**A positive value indicates a unidirectional relationship, if CAR increases by 1%, then ROA increases by 0.018 units provided that the other independent variables are constant or zero.
3) The NPL regression coefficient value is - 0.171, a negative value indicates the opposite relationship, if the ROA value increases by 1%, then the NPL value decreases by - 0.171 units provided that the other independent variables are constant or zero.
4) The IETTL regression coefficient value of + 0.001 has a positive value indicating that there is a unidirectional relationship, if the ROA value increases by 1%, then the IETTL value increases by + 0.001 units provided that the other independent variables are constant or zero.
5) The NIM regression coefficient value of + 0.351 has a positive value indicating that there is a unidirectional relationship, if IETTL increases by 1%, then the ROA value increases by + 0.351 units provided that the other independent variables are constant or zero.
6) The BOPO regression coefficient value of - 0.071 has a negative value indicating the opposite relationship, if the ROA value is 1%, then the BOPO value decreases by - 0.071 units provided that the other independent variables are constant or zero.
7) The LDR regression coefficient value of + 0.001 has a positive value indicating that there is a unidirectional relationship, if the LDR increases by 1%, then the ROA value increases by + 0.001 units provided that the other independent variables are constant or zero.
8) The PDN regression coefficient value of - 0.072 has a negative value indicating the opposite relationship, if the ROA value is 1%, then the PDN value decreases by - 0.072 units provided that the other independent variables are constant or zero.

Table 2 ROE Multiple Regression Test Results

Coefficientsa

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	59.204	4,431		13,360	,000
	CAR	-.993	,179	-.375	-5,554	,000
	NPLs	-1,608	,550	-.247	-2,927	,007
	IETTL	,085	,225	,020	,378	,708
	NIM	2,975	,406	,322	7,328	,000
	BOPO	-.368	,052	-.503	-7.121	,000
	LDR	-.096	,044	-.113	-2,175	,038
	PDN	-.155	.108	-.070	-1,437	,162

a. Dependent Variable: ROE

Source: secondary data processed, SPSS

Based on the table above, the multiple linear regression equation in this research is:

Y2 =59.204- 0.993 X1 –1,608X2 + 0.085 X3 + 2.975 X4 - 0.368 X5 - 0.096 X6 - 0.155 X7

ROE = 59.204- 0.993 CAR –1,608NPL + 0.085 IETTL + 2.975 NIM - 0.368 BOPO - 0.096 LDR - 0.155 PDN

The regression equation above can be explained based on each coefficient as follows:

1) A constant of**59.204;**meaning if X1, X2, X3, X4, X5, X6, ROE or X1 is equal to**59.204**
2) The CAR regression coefficient value of - 0.993 has a negative value indicating the opposite relationship, if the ROE value is 1%, then the CAR value decreases by - 0.993 units provided that the other independent variables are constant or zero.
3) The NPL regression coefficient value is –**1,608**has a negative value indicating that there is an opposite relationship, if the ROE value is 1%, then the NPL value has decreased by -**1,608**units provided that the other independent variables are constant or zero.
4) The IETTL regression coefficient value of + 0.085 has a positive value indicating that there is a unidirectional relationship. If the ROE value is 1%, then the IETTL value will increase by + 0.085 units provided that the other independent variables are constant or zero.
5) The NIM regression coefficient value of + 2.975 has a positive value indicating that there is a unidirectional relationship, if IETTL increases by 1%, then the ROE value increases by + 2.975 units provided that the other independent variables are constant or equal to zero.

6) The BOPO regression coefficient value of - 0.368 has a negative value indicating the opposite relationship, if the ROE value is 1%, then the BOPO value decreases by - 0.368 units provided that the other independent variables are constant or zero.
7) The LDR regression coefficient value of - 0.096 has a negative value indicating the opposite relationship, if the ROE value is 1%, then the LDR value decreases by - 0.096 units provided that the other independent variables are constant or zero.
8) The PDN regression coefficient value of - 0.155 has a negative value indicating the opposite relationship, if the ROE value is 1%, then the PDN value decreases by - 0.155 units provided that the other independent variables are constant or zero.

T Count Test Results (Partial Test)

The t statistical test is carried out to determine how far the influence of one independent variable individually explains variations in the dependent variable. The t statistical test was carried out by comparing the results of the significance value with α = 0.05. The results of the t test of the regression model can be seen in the following table:

Table 3 T Test Results (Partial Test) of ROA

Coefficientsa

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	6,009	,524		11,465	,000
	CAR	.018	.021	,058	,841	,407
	NPLs	-.171	,065	-.227	-2,630	.014
	IETTL	,001	,027	,003	,050	,960
	NIM	,351	,048	,328	7,309	,000
	BOPO	-.071	,006	-.834	-11,553	,000
	LDR	,001	,005	.014	,264	,794
	PDN	-.072	.013	-.280	-5,634	,000

a. Dependent Variable: ROA

Source: secondary data processed, SPSS

T table = (a/2; nk-1) = (0.05/2; 36-7-1) = (0.025 ; 28) = 2,048

Simultaneous Significance Test Results (F-Test)

1) **T test results for the variable CAR (X1) against ROA (Y1)**
It is known that Sig. for the partial influence of CAR (X1) on ROA (Y1) is equal to0.407 > 0.05 and the calculated t value is 0.841 < t table 2.048, so it can be concluded that H1 is accepted which means a positive influenceCAR (X1) to ROA (Y1), but in this study it is not significant.
2) **T test results for the variable NPL (X2) against ROA (Y1)**
It is known that Sig. for the partial effect of NPL (X2) on ROA (Y1) is equal to0.014 > 0.05 and the calculated t value is 2.630 > t table 2.048, so it can be concluded that H2 is accepted which means there is a significant negative influenceNPL (X2) against ROA (Y1)
3) **T test results for variable IETTL (X3) on ROA (Y1)**
It is known that Sig. for the partial influence of IETTL (X3) on ROA (Y1) is equal to0.960 > 0.05 and the calculated t value is 0.050 < t table 2.048, so it can be concluded that H3 is rejected, which means there is no significant negative influenceIETTL (X3) against ROA (Y1).
4) **T test results for the variable NIM (X4) against ROA (Y1)**
It is known that Sig. for the partial influence of NIM (X4) on ROA (Y1) is equal to0.00 < 0.05 and the calculated t value is 7,309 > t table 2,048, so it can be concluded that H4 is accepted, which means there is a significant positive influenceNIM (X4) against ROA (Y1)
5) **T test results for the variable BOPO (X5) against ROA (Y1)**
It is known that Sig. for the partial effect of BOPO (X5) on ROA (Y1) is equal to0.00 < 0.05 and the calculated t value is 11,553 > t table 2,048, so it can be concluded that H5 is accepted, which means there is a significant negative influenceBOPO (X5) against ROA (Y1)
6) **T test results for LDR variable (X6) against ROA (Y1)**
It is known that Sig. for the partial influence of LDR (X6) on ROA (Y1) is equal to0.264 > 0.05 and the calculated t value is 0.794 < t table 2.048, so it can be concluded that**H6 is rejected**which means there is no significant positive effectLDR (X6) against ROA (Y1).
7) **T test results for the PDN variable (X7) on ROA (Y1)**

It is known that Sig. for the partial influence of PDN (X7) on ROA (Y1) is equal to0.00 < 0.05 and the calculated t value is 5,634 > t table 2,048, so it can be concluded that H7 is accepted, which means there is a significant negative influencePDN (X7) against ROA (Y1).

Table 4 T Test Results (Partial Test) of ROE

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	59.204	4,431		13,360	,000
	CAR	-.993	,179	-.375	-5,554	,000
	NPLs	-1,608	,550	-.247	-2,927	,007
	IETTL	,085	,225	,020	,378	,708
	NIM	2,975	,406	,322	7,328	,000
	BOPO	-.368	,052	-.503	-7.121	,000
	LDR	-.096	,044	-.113	-2,175	,038
	PDN	-.155	.108	-.070	-1,437	,162

a. Dependent Variable: ROE

Source: secondary data processed, SPSS

8) T test results for the variable CAR (X1) against ROE (Y2)

It is known that Sig. for the partial influence of CAR (X1) on ROE (Y2) is equal to0.00 < 0.05 and the calculated t value is 5,554 > t table 2,048, so it can be concluded that H8 is rejected, which means there is no significant positive effectCAR (X2) against ROE (Y2).

9) T test results for the variable NPL (X2) against ROE (Y2)

It is known that Sig. for the partial effect of NPL (X2) on ROE (Y2) is equal to0.00 < 0.05 and the calculated t value is 2,927 > t table 2,048, so it can be concluded that H9 is accepted, which means there is a significant negative influenceNPL (X2) against ROE (Y2)

10) T test results for the IETTL variable (X3) on ROE (Y2)

It is known that Sig. for the partial influence of IETTL (X3) on ROE (Y2) is equal to0.708 > 0.05 and the calculated t value is 0.378 < t table 2.048, so it can be concluded that H10 is rejected, which means there is no significant negative influenceIETTL (X3) against ROE (Y2)

11) T test results for the variable NIM (X4) against ROE (Y2)

It is known that Sig. for the partial influence of NIM (X4) on ROE (Y2) is equal to0.00 < 0.05 and the calculated t value is 7.328 > t table 2.048, so it can be concluded that H11 is accepted which means there is a significant positive influenceNIM (X4) against ROE (Y2)

12)T test results for the BOPO variable (X5) against ROE (Y2)

It is known that Sig. for the partial effect of BOPO (X5) on ROE (Y2) is equal to0.00 < 0.05 and the calculated t value is 7.121 > t table 2.048, so it can be concluded that H12 is accepted which means there is a significant negative influenceBOPO (X5) against ROE (Y2)

13)T test results for LDR variable (X6) against ROE (Y2)

It is known that Sig. for the partial influence of LDR (X6) on ROE (Y2) is equal to0.00 < 0.05 and the calculated t value is 2,175 > t table 2,048, so it can be concluded that H13 is rejected, which means there is a significant positive influenceLDR (X6) against ROE (Y2)

14) T test results for the PDN variable (X7) on ROE (Y2)

It is known that Sig. for the partial influence of PDN (X7) on ROE (Y2) is equal to0.162 > 0.05 and the calculated t value is 1.437 < t table 2.048, so it can be concluded that H14 is accepted which means there is a negative influencePDN (X7) to ROE (Y2) but not significant.

Based on the data above, it can be concluded that the independent variables that have a significant influence on the dependent variable (ROA) are NPL, NIM, BOPO, PDN. Meanwhile, the CAR, IETTL and LDR ratios do not have a significant effect on the dependent variable (ROA). Meanwhile, the independent variables that have a significant influence on the dependent variable (ROE) are CAR, NPL, NIM, BOPO, LDR. Meanwhile, the IETTL and PDN ratios do not have a significant effect on the dependent variable (ROE).

Simultaneous F Test Results

The F test basically shows whether all the independent variables included in the model have a joint influence on the dependent variable (Gozali, 2018). The results of the F test are obtained as follows:

Table 5 Simultaneous F Test Results for ROA with ANOVA

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10,164	7	1,452	84,079	,000b
	Residual	,484	28	.017		
	Total	10,647	35			

a. Dependent Variable: ROA

b. Predictors: (Constant), PDN, NPL, NIM, IETTL, LDR, CAR, BOPO

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.977a	,955	,943	.13141

a. Predictors: (Constant), PDN, NPL, NIM, IETTL, LDR, CAR, BOPO

Source: secondary data processed, SPSS

It can be seen from the table above that it can be concluded:

1. Calculated F value > F table (84,079 > 2.36). So the conclusion is that there is an influence of variable X on variable Y simultaneously
2. The value of the coefficient of determination (*Adjusted R Square*) of 94.3%. This means that the ability of the independent variable to explain the dependent variable is quite limited. Meanwhile, the remaining 5.7% is other variables that were not studied.

Table 6 Simultaneous F Test Results for ROE with ANOVA

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	761,237	7	108,748	88,077	,000b
	Residual	34,571	28	1,235		
	Total	795,809	35			

a. Dependent Variable: ROE

b. Predictors: (Constant), PDN, NPL, NIM, IETTL, LDR, CAR, BOPO

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.978a	,957	,946	1.11117

a. Predictors: (Constant), PDN, NPL, NIM, IETTL, LDR, CAR, BOPO

Source: secondary data processed, SPSS

It can be seen from the table above that it can be concluded:

1. Calculated F value > F table (88,077 > 2.36). So the conclusion is that there is an influence of variable X on variable Y simultaneously.
2. The value of the coefficient of determination (*Adjusted R Square*) of 94.6%. This means that the ability of the independent variable to explain the dependent variable is quite limited. Meanwhile, the remaining 5.4% is other variables that were not studied.

DISCUSSION

Discussion of the Effect of CAMELS Variables on Profitability

a. Influence*Capital Adequacy Ratio*(*CAR)*on Profitability

The results of testing CAR on profitability using the t test showed that the effect of CAR on ROA was0.407 > 0.05and ROE of0.00 < 0.05.It can be concluded that the CAR variable partially has a positive and insignificant effect on ROA and a significant negative effect on ROE. This research is in line with research conducted by Echekoba (2014), Abdulazeez (2017) where CAR has a positive and insignificant effect on ROA, but is different from research by Suvita (2022),Andy (2017) where CAR has a positive and significant effect on ROE.

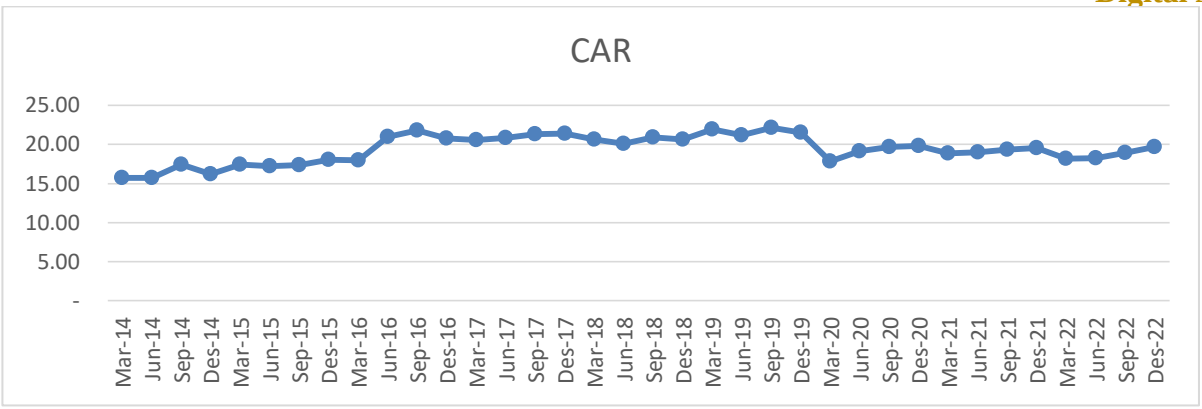

Figure 4.3. CAR Development over 36 Periods

Source: secondary data processed, SPSS

Bank Mandiri's CAR ratio has an average of 19.38% which is considered still good because it has exceeded the minimum CAR ratio requirement of 8% of Risk Weighted Assets (RWA) according to PBI No. 10/15/PBI/2008 Article 2. A high CAR value indicates that the bank's capital ratio is also getting higher. This causes banks to be able to bear the risk of credit or productive assets that have risks. A high CAR value indicates the bank's ability to cover operational costs and place its funds in profitable investment activities which will affect the profitability ratio.

Explanation of research findings:

From the regression equation that has been formed, the CAR variable has a negative regression value, which means that the greater the CAR, the greater the ROE profitability level of the bank. The reason CAR does not have an effect on ROE is because management performance is considered to be still not good, so the profits obtained by the company do not yet have the ability to create net profits for the company that can be distributed to stock investors so that stock investors feel they are not benefiting. This can also be caused because in analyzing shares, investors have not considered the bank's fundamental factors, thus causing the ROE variable to have no effect on share prices. This can be seen from the data in December 2020 with the lowest ROE value in the research period of 9.36%, while the CAR value was 19.81%. It is hoped that Bank management will reduce and manage the amount of accumulated CAR capital so that the use of capital can be managed productively to gain profits.

b. The Effect of Non-Performing Loans (NPL) on Profitability

The results of testing NPL on profitability using the t test show that the probability of NPL on ROA is0.407 > 0.014and ROE of0.00 < 0.07.It can be concluded that the NPL variable partially has a significant negative effect on ROA and ROE. Some of the challenges that are pressuring the rate of credit growth at Bank Mandiri are increasing inflationary pressures, especially due to increases in fuel prices, increases in interest rates, and the possibility of corrections in commodity prices.This research is in line with research conducted by Emmy (2017), Kamal (2022),WhereNPL has a significant negative effect on ROA,Suvita Jha, Xiaofeng Hui (2012) where NPL has a significant negative effect on ROE. Bank Mandiri's NPL ratio is still maintained below 5% (average 2.80%) in accordance with PBI regulation No.23/2/PBI/2021. The greater the NPL percentage, the greater the reserves that must be formed, and the higher the opportunity costs that must be borne by the bank. This is related to the ability of bank management to manageproblem loans provided by banks. So the higher the NPL, the lower the ROA will be due to the loss of the bank's opportunity to make a profit. Likewise with the ROE ratio, if the NPL increases, the bank's financial performance can be said to be getting worse.

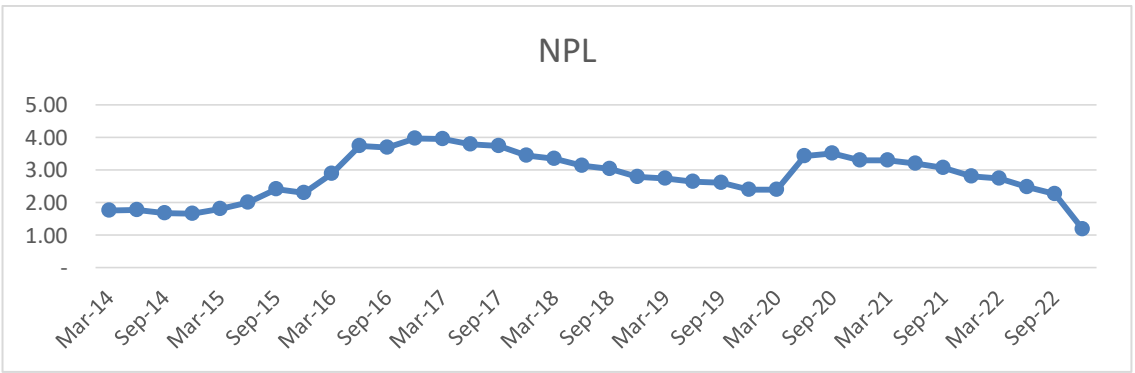

Figure 4.4. NPL Development over 36 Periods

Source: secondary data processed, SPSS

In an effort to control the NPL ratio, the Bank undertakes to maintain credit quality in the following ways:

1. Reviewing the performance of credit accounts in collectibility 1 and 2 to then be included in the supervision category.
2. Saving credit for debtors under supervision through accelerating credit restructuring, especially for debtors who have good faith, improving business prospects and financial conditions, as well as collateral with an adequate security coverage ratio.
3. Debt rescheduling, reconditioning and restructuring, including through credit conversion
4. Reviewing the financial condition of debtors who have undergone restructuring through assessing business prospects by taking into account market conditions and the debtor's business sector.

Credit risk and potential debtor failure are monitored and detected early (Early Warning Signals), including using ALERT (watchlist) tools and if the debtor has potential problems, further handling needs to be carried out, including collection, recovery and restructuring activities. For the retail segment, the credit process is carried out more automatically using a credit risk scorecard, referring to the Risk Acceptance Criteria for each product, and processed through an automated work-flow (loan factory). In the event of a decrease in the debit balance that cannot be restructured, Bank Mandiri is increasing coordination and cooperation with stakeholders in handling problem loans such as PPATK, private auction houses, prosecutors and curators.

In maintaining asset quality amidst economic uncertainty during the Covid-19 pandemic, which includes the research period 2020 to 2022, Bank Mandiri focuses on three things. These three things are credit continuing to grow, cost efficiency and digital acceleration. Credit grows with the credit distribution program related to the National Economic Recovery (PEN) program reducing debtor credit through restructuring can help debtors, increase the efficiency of maintaining costs*cost*become efficient by increasing productivity and reducing operational costs. Bank Mandiri is aware that with the Covid-19 pandemic, people's behavior patterns have also changed. Physical activity is rare, including banking activities that are usually carried out by bank officers in serving customers*on line*with the launch of Livin by Mandiri and Kopera as onedigital solutions starting in October 2021, making it easier for customers to open accounts digitally, various digital transaction features, speeding up the credit process through the Mandiri smart feature, and Open Banking solutions through the API portal.

c. InfluenceInterest Expense To Total Loan (IETTL)on Profitability

The results of the IETTL test on profitability using the t test showed that the probability of CAR on ROA was equal to0.960 > 0.05and ROE of0.708 > 0.05.It can be concluded that the CAR variable partially has a positive and insignificant effect on ROA and ROE. The results of this study are different from the research resultsSuvita Jha and and Xiaofeng Hui (2012)where IETTL has a significant negative effect on ROA, Zaroug Osman Mohamed (2015),Md Nur Nabi (2019) and Zaroug Osman Mohamed (2015), where IETTL has a significant negative effect on ROE.

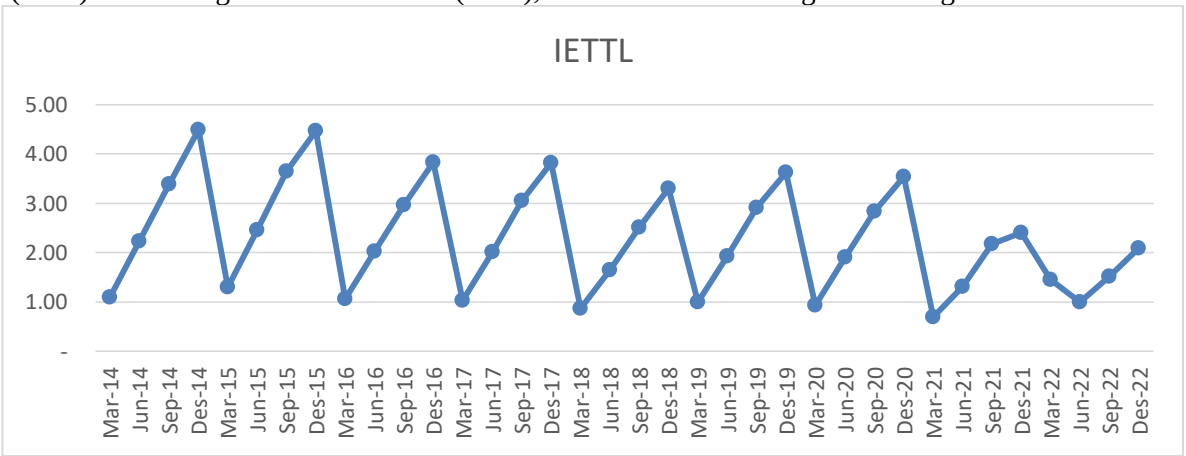

Figure 4.5. IETTL Development over 36 Periods
Source: secondary data processed, SPSS

Explanation of research findings:

In this research, the Interest Expense to Total Loan (IETTL) variable shows that the results are positive but not significant for the two profitability variables. The interest expense incurred by banks comes from interest income which, if it increases, has an impact on increasing bank profitability but is not significant. The factors that influence this are market conditions and interest competition between banks. This causes banks to experience a decrease in income in obtaining interest income margins in disbursing credit. Apart from that, it is also influenced by the quality of the credit distributed, because the more liquid the collateral provided, the lower the credit interest charged and vice versa. For this reason, in improving the quality of management, it is necessary to increase the ability to measure,

maintain and control risks. A low IETTL ratio shows the ability and efficiency of bank management in carrying out operations in accordance with the principle of prudence so that it is able to reduce credit expenditures against existing capital. Managerial efficiency cannot be separated from improving the health of credit quality while still paying attention to the 5 C concept (Character, Capital, Capacity, Collateral and Condition) and implementing Good Corporate Governance (GCG):

1. Transparency, namely openness in presenting material and relevant information as well as openness in the decision-making process.
2. Accountability is the clarity of the functions and implementation of responsibilities of Bank organs so that their management runs effectively.
3. Responsibility, namely the conformity of Bank management with applicable laws and regulations and the principles of healthy Bank management.
4. Independence means managing the Bank professionally without influence/pressure from any party.
5. Fairness, namely fairness and equality in fulfilling stakeholder rights arising based on agreements and applicable laws and regulations.

d. Influence*Net Interest Margin*(NIM)on Profitability

The results of testing NIM on profitability using the t test showed that the probability of NIM on ROA was equal to0.000 < 0.05and ROE of0.000 < 0.05.It can be concluded that the NIM variable partially has a significant positive effect on ROA and ROE. The results of this research are in line with research by Devi (2021), Suvita (2022),where NIM has a significant positive effect on ROA, Erna Wati (2011) and Zaroug Osman Mohamed (2015) where NIM has a significant positive effect on ROE.

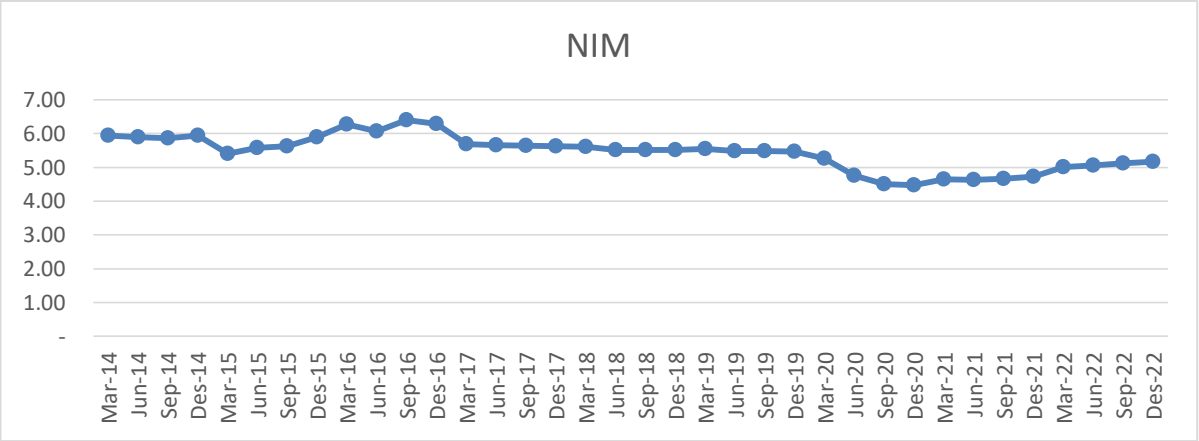

Figure 4.6. Development of NIM over 36 Periods
Source: secondary data processed, SPSS

The NIM ratio is considered good in managing its productive assets to generate net interest income. The greater the NIM ratio, the more binding the interest income on productive assets managed by the bank, so the possibility of the bank being in trouble is smaller. Bank Mandiri's Net Interest Margin (NIM) has an average value of 5.44%. According to Bank Indonesia Regulation no. 13/1/PBI/2011, the best standard Net Interest Margin (NIM) for the average bank is 5%. However, an NIM that is too high can also have several negative impacts on the bank's business in the long term. For example, high borrowing costs, especially for customers who have low incomes and are vulnerable, reduce their ability to finance businesses and expand businesses, and have a negative effect on countries with high inflation because they affect price stability.

The increase in BI's benchmark interest every year encourages banks to adjust credit interest rates. However, banks need to consider several factors when adjusting interest rates, including liquidity, debtor business conditions and competition in the market. Bank Mandiri sees a potential opportunity amidst this increase in interest rates, namely pricing policy by reducing the cost of funds or*cost of funds.* Pricing policy in increasing NIM,not through lending with high fees or interest rates, but the ability to reduce the cost of funds through digital banking strategies at Livin and Kopra and close loop ecosystem acquisition strategies. This digitalization also encourages non-interest income or fee-based income.

e. InfluenceOperational Costs to Operational Income(BOPO)**on Profitability**

The results of BOPO testing on profitability using the t test showed that the probability of BOPO on ROA was0.000 < 0.05and ROE of0.00 < 0.05.It can be concluded that the BOPO variable partially has a significant negative effect on ROA and ROE. This research is in line with research conducted by Emmy (2017),Pearl (2020),where BOPO

has a significant negative effect on ROA, Farrashita (2016) and Haeril (2021)where BOPO has a significant negative effect on ROE. According to Bank Indonesia Regulation no. 13/1/PBI/2011, the best standard for the ratio of Operational Costs to Operating Income (BOPO) is around 80%.

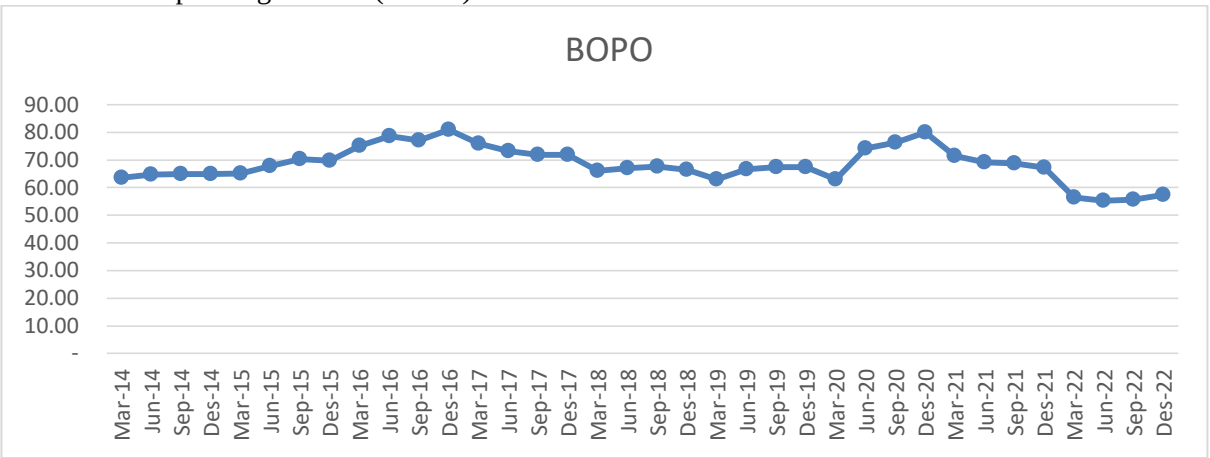

Figure 4.7. BOPO Development over 36 Periods
Source: secondary data processed, SPSS

Bank Mandiri is considered efficient in managing its operations. To maintain the BOPO ratio, Bank Mandiri strives to prioritize quality in business expansion and maintain operational income growth above operational cost growth. One way is to make operational costs more efficient by implementing operational digitalization. Based on data from Bank Indonesia (BI), throughout April 2023 transaction value*digital banking*domestically it reached IDR 4,264.8 trillion or almost IDR 4.3 quadrillion. This value includes various digital banking transactions ordigital bankingaccording to the classification of the Financial Services Authority (OJK), namely internet banking, SMS/mobile banking, and telephone banking. Referring to Financial Services Authority Regulation Number 12 /POJK.03/2018, digital banking services are banking services via electronic media that are developed by optimizing the use of customer data.

Figure 4.8.Digital Banking Transaction Value in Indonesia / Month (January 2018-April 2023)
Source:https://databoks.katadata.co.id/

Bank Mandiri has implemented digitalization in opening accounts since October 2021. Opening an online account can be accessed via the link join.bankmandiri.co.id. Things to pay attention to are:

1) Insights and skills for HR require a process of transition and adaptation.
2) Along with advances in technology, easy access is easy to obtain from various sources and until now, the security of digital archives is considered important because they are considered to be easily leaked and can be misused by irresponsible parties.
3) Digital documents are considered easy to manipulate and forge. Document authentication is a very vital issue in the legalization or document processing process. With the existence of electronic signature technology that is recognized by the state and supported by existing security systems, the use of digital signatures becomes more difficult to manipulate. The existence of this document authentication technology can be the answer to various parties' doubts about digital document authentication

f. Influence of Loan to Deposit Ratio (LDR)on Profitability

The results of testing LDR on profitability using the t test show that the probability of LDR on ROA is0.794 > 0.05and ROE of0.038 > 0.05.It can be concluded that the LDR variable partially has a positive but not significant effect on ROA and ROE. This research is different from research conducted byDesfian (2003) and Andy (2017), where LDRsignificant positive effect on ROA.Gandung Yabureta (2016) and and Haeril (2021)WhereLDRsignificant positive effect on ROE.Based on Bank Indonesia Regulation no.17/11/PBI/2015 dated 25 June 2015, the LDR limit is 78 -92%.

Explanation of research findings:

Based on the research results, it shows that the Loan to Deposit Ratio (LDR)has a significant negative regression coefficient on profitability (ROE). This is because the period and number of samples taken shows that the higher the LDR, the more illiquid the bank's condition is. In this case, an increase in the Loan to Deposit Ratio (LDR)shows that the bank is less able to fulfill its obligations to pay funds to creditors for the credit disbursed, besides that it also indicates that there is a high level of credit provided but it is not accompanied by a high rate of return or bad credit, so that instead of making a profit the bank actually experiences losses or decreases in profitability.

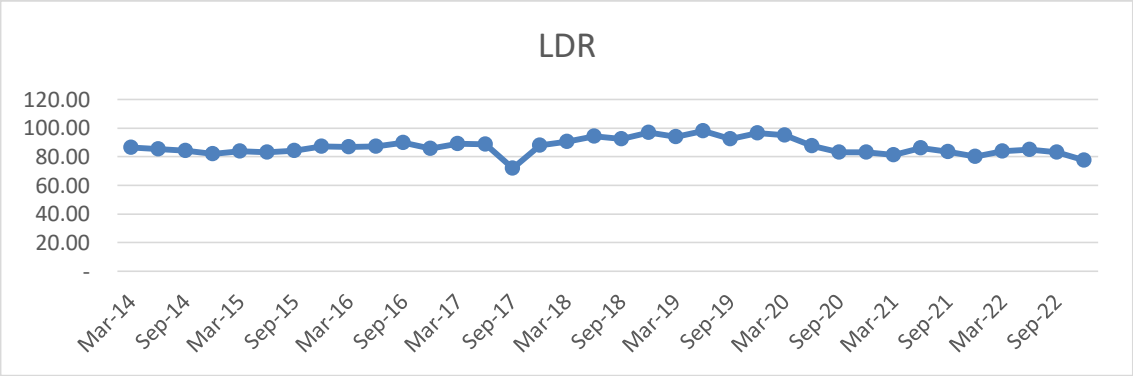

Figure 4.9. Development of LDR over 36 Periods

Source: secondary data processed, SPSS

Figure 4.10. Growth in DPK, CASA and Credit Growth

Source: Bank Mandiri Annual Report 2022

Based ongrowth in DPK, CASA and credit growth above,Credit distribution is supported by two main bank segments, namely Wholesale Banking (corporate and commercial) and Retail Banking (SME, Micro, Consumer). Domestic economic growth encourages credit growth at banks, especially in sectors that are still recording increases, including plantations, infrastructure construction services, the food and beverage industry, energy and water, and financial services. Apart from that, Bank Mandiri Management must be able to maintain the Loan to Deposit Ratio (LDR)is at an optimal level with a focus on the growth of low-cost funds (CASA). Through a digital transformation strategy, Bank Mandiri has proven that many customers have switched their transactions using the Livin' application from transactions using ATMs as shown in the following graph:

Jumlah Transaksi Per Triwulan
(dalam Rp Triliun)

	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20
Livin' by Mandiri	55	83	100	128	146	166	174	200	241	235
ATM	373	367	344	357	341	365	339	286	301	290

1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22
244	284	317	380	417	467	501	559
274	279	264	271	254	259	262	259

Figure 4.11. Quarterly Transaction Value (Rp. Trillion)

Source: Bank Mandiri Annual Report 2022

Bank Mandiri's digitalization started with 3 main innovations, namely the Kopra super platform, the Livin' super app, and Smart Branch by Mandiri. Kopra and Livin' have shown good performance since they were launched in October 2021. Kopra supports Bank Mandiri's growth from three main aspects, namely increasing income, both interest income and fee-based income. Kopra also optimally succeeded in increasing the volume of low-cost funds or Bank Mandiri's CASA, which also resulted in the cost of funds ratio remaining at a low level.

g. InfluenceNet Foreign Exchange Position (PDN)on Profitability

Based on Net Foreign Exchange Position (PDN) data throughout 2014-2022, PDN conditions experienced fluctuating increases and decreases every year but increased significantly in 2022. The exchange rate risk in December 2022 was the highest. The results of the PDN test on probability using the t test were obtained that PDN to ROA is equal to0.000 < 0.05and ROE of0.162 > 0.05.It can be concluded that the PDN variable partially has a significant negative effect on ROA, but the negative effect is not significant on ROE. This research is different from research conducted byAndy (2017) and Kevin Salim (2020), Dita (2020) wherePDN has a significant negative effect on ROA,Kevin Salim (2020), wherePDN has a significant negative effect on ROE.

Calculation of Net Open Position is regulated based on PBI No. 17/5/PBI/2015 dated 29 May 2015. The overall Net Open Position Ratio is the sum of the absolute value of the net difference between assets and liabilities in the statement of financial position for each foreign currency expressed in Rupiah plus the net difference from receivables and liabilities commitments and contingencies, which are recorded in the administrative account, for each foreign currency, are expressed in Rupiah, while the net open position for the statement of financial position is the net difference between total assets and total liabilities in foreign currency expressed in Rupiah.

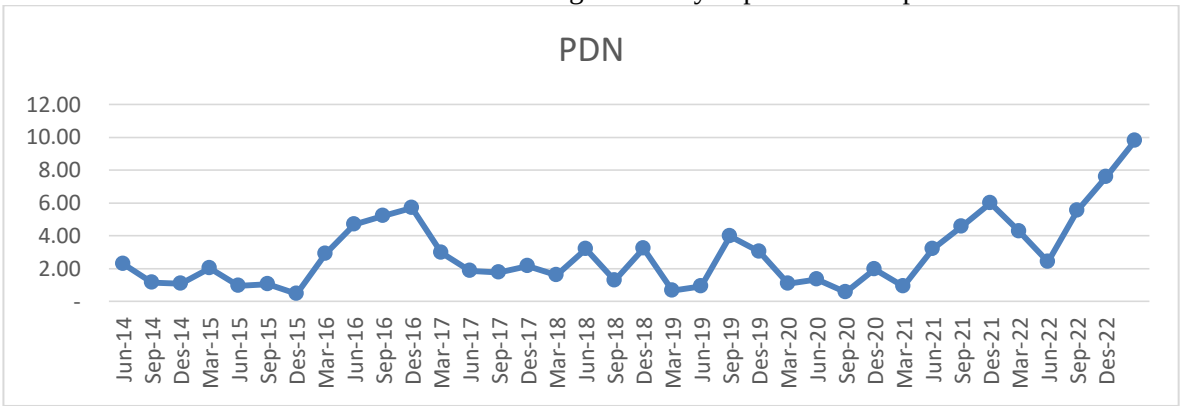

Figure 4.12. Development of PDN over 36 Periods

Source: secondary data processed, SPSS

Bank Mandiri implements adequate exchange rate risk management to avoid losses due to changes or volatility in exchange rates. Exchange rate risk originates from foreign exchange transactions with customers or counterparties which result in open positions in foreign currency or structural positions in foreign currency due to capital investments. The Bank manages exchange rate risk by monitoring and managing the Net Open Position (PDN) in accordance with internal limits and Bank Indonesia regulations.

CONCLUSION

The conclusions of this research are as follows:

1. The results of the first hypothesis show that the Capital Adequacy Ratio (CAR) has an insignificant positive influence on ROA.
2. The results of the second hypothesis show that Non-Performing Loans (NPL) have a significant negative influence on ROA
3. The results of the third hypothesis show that Interest Expense to Total Loan (IETTL) has a significant positive influence on ROA.
4. The results of the fourth hypothesis show that Net Interest Margin (NIM) has a significant positive influence on ROA.
5. The results of the fifth hypothesis show that Operational Costs on Operating Income (BOPO) have a significant negative influence on ROA.
6. The results of the sixth hypothesis show that the Loan to Deposit Ratio (LDR) has an insignificant positive influence on ROA.
7. The results of the seventh hypothesis show that Net Open Position (PDN) has a significant negative influence on ROA.
8. The results of the eighth hypothesis show that the Capital Adequacy Ratio (CAR) has a significant negative influence on ROE.
9. The results of the ninth hypothesis show that Non-Performing Loans (NPL) have a significant negative influence on ROE.
10. The results of the tenth hypothesis show that Interest Expense to Total Loan (IETTL) has an insignificant positive influence on ROE.
11. The results of the eleventh hypothesis show that Net Interest Margin (NIM) has a significant positive influence on ROE.
12. The results of the twelfth hypothesis show that Operational Costs on Operating Income (BOPO) have a significant negative influence on ROE.
13. The results of the thirteenth hypothesis show that the Loan to Deposit Ratio (LDR) has a significant influence on ROE.
14. The results of the fourteenth hypothesis show that Net Open Position (PDN) has an insignificant negative influence on ROE.

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