IMPACT OF INFLATION AS A CREDIT RISK MODERATOR ON THE PROFITABILITY OF INDONESIAN BANKING SECTOR

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ARTICLEINFO	ABSTRACT
Keywords: Inflation, Profitability, Credit Risk	The purpose of this study is to determine the signification of factors that affect the company's profitability through the Inflation factor as a moderation variable. The research method used is a quantitative research method. The population in this study of financial institutions in the banking sector in Indonesia is conventional commercial banks and observational data during 2016 - 2020. The sampling measurement technique uses purposive sampling. The sampling technique uses secondary data, namely published financial statements. The data analysis technique used is to use descriptive statistical analysis before and after the existence of interactive variables, then followed by multiple regression and testing moderation variables all variables tested using the entered method. The results of the study explained that before the moderation variable, namely the credit risk interaction variable, it had an insignificant effect on profitability.
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1. INTRODUCTION

Banks as intermediation institutions have a very important function and role in moving the wheels of the economy, especially collecting funds and distributing them in the form of credit. [1] states, that the function of bank credit here is to increase the ability of investors (banks) to exploit profitable ventures. The opinion of other researchers [2] states, that the creation of credit is to generate the main income activity of the bank. But credit is also a relatively large contributor to risk. As stated [3] in his research stated, that credit risk is the most visible risk that must be faced by bank managers, while credit risk is considered the main cause of bank failure. The greater the credit risk and the more uncollectible the bank, the more bad debts will be [4].

The role of banks as *profit-oriented* intermediation institutions, especially in loan products that must be anticipated by the risk of non-performing loans. Credit risk is defined as the level of fluctuation in the value of debt instruments and derivatives due to changes in the underlying credit quality of the borrower. Credit risk is also defined as the risk of non-achievement of projected cash flows from loans and securities held by intermediation agencies [5]. The failure to achieve the projected cash flow from loans, because the greater the credit risk, the greater the formation of reserve costs for the write-off of prodictive assets and will have an impact on reducing profits [6]. A reduction in profits will obviously result in a reduction in the amount of cash inflows. Small cash inflows will reduce the ability of cash for the company's operations, where the company cannot meet existing expenses. Likewise, it is the same as what is stated [7], that the large number of non-performing loans will lead to bank failure, because banks that fail tend to incur high costs and generate low profits. Menurut [8] that net profit is operating profit minus cost costs such as tax costs, interest costs, research and development costs.

The most severe problem of non-performing loans (NPLs) in Indonesia occurred during the crisis in 1997/1998 which then continued with the global crisis in 2008, this condition prompted Bank Indonesia as the Central Bank to make adjustments and policies as a preventive measure, namely to prevent the occurrence of risks that would occur in the banking sector in the future after the crisis.

Research on NPLs conducted by [9] that NPLs have a negative effect on ROA, while [10] NPLs have a positive effect on ROA. Research [11] shows that NPLs have a negative and significant effect on ROA. The results of the study [11] contradict the studies conducted by [12] and [13] which show a positive influence between NPLs on ROA. Research [14] shows that DER has a negative and significant effect on ROA. The results of the study [14] contradict the studies conducted by[15], [16] which showed a positive influence between DER on ROA. There are differences in the results of this study, researchers place inflation variables as an effort to address the inconsistency of the research results on the effect of credit risk on profitability.

Inflation is one of the factors that has received less attention from researchers, because inflation is an *uncontroll* variable, which always affects business in general, including the banking sector.

The purpose of this study is to determine whether inflation factors can moderate, namely strengthening or weakening the effect of credit risk on profitability. The results of this study are expected to be input in decision making for stakeholders in the banking sector in Indonesia

METHOD
2.1   Types and Data Sources

The type of research used in this study is a quantitative method, the researcher also uses secondary data obtained directly from the Indonesian Stock Exchange (IDX). The population used in this study was 24 National Foreign Exchange Private Commercial Banks listed on the Indonesia Stock Exchange in the 2015-2019 period. The sampling technique used in this study was the *Purposive Sampling* technique, so that a sample of 9 banks with a research period of 5 years was obtained so that 45 research data samples were obtained.

2.2   Analysis Method

The data analysis methods used in this study are ROA, NPL, INFLATION and Interactive data analysis. Then multiple egretion r analysis was carried out to determine the magnitude of the t test and the F test to determine the influence of each variable.

3.   RESULT AND DISCUSSION
3.1 Calculation of ROA, NPL, Inflation and Interactive

Based on the calculation results obtained data on ROA NPL Inflation and Interactive, can be seen in table 1.

Table 1 data on ROA NPL Inflation and Interactive National Private Commercial Banks 2015 - 2019

Kode	Tahun	ROA	NPL	INFLASI	X Interaktif	Kode	Tahun	ROA	NPL	INFLASI	X Interaktif
BDMN	2015	0,0013	0,0312	0.0335	0,001	BBMD	2015	0,0231	0,0229	0,0335	0,0008
	2016	0,016	0,0298	0,0302	0,0009		2016	0,0211	0,0365	0,0302	0,0011
	2017	0,0204	0,028	0,0361	0,001		2017	0,0248	0,0263	0,0361	0,0009
	2018	0,0181	0,0263	0,0313	0,0008		2018	0,0199	0,0106	0,0313	0,0003
	2019	0,0194	0,0327	0,0272	0,0009		2019	0,0179	0,0061	0,0272	0,0002
BGTG	2015	0,0024	0,0307	0,0335	0,001	NISP	2015	0,0176	0,0133	0,0335	0,0004
	2016	0,0129	0,0131	0,0302	0,0004		2016	0,0124	0,0194	0,0302	0,0006
	2017	0,0104	0,0081	0,0361	0,0003		2017	0,0093	0,0186	0,0361	0,0007
	2018	0,0011	0,044	0,0313	0,0014		2018	0,0145	0,0179	0,0313	0,0006
	2019	0,0021	0,0233	0,0727	0,0006		2019	0,0147	0,0178	0,0272	0,0005
BNII	2015	0,007	0,0136	0,0335	0,0005	PNBN	2015	0,009	0,0031	0,0335	0,0001
	2016	0,0108	0,0167	0,0302	0,0005		2016	0,0117	0,0046	0,0302	0,0001
	2017	0,0099	0,0201	0,0361	0,0007		2017	0,0097	0,0047	0,0361	0,0002
	2018	0,0116	0,0204	0,0313	0,0006		2018	0,0144	0,0082	0,0313	0,0003
	2019	0,0099	0,03	0,0272	0,0008		2019	0,0147	0,0074	0,0272	0,0002
MAYA	2015	0,0147	0,0031	0,03335	0,0001	BSIM	2015	0,0068	0,0377	0,0335	0,0013
	2016	0,014	0,0023	0,0302	0,0001		2016	0,0114	0,0142	0,0302	0,0004
	2017	0,0093	0,0018	0,0361	0,0001		2017	0,0088	0,0313	0,0361	0,0011
	2018	0,0051	0,0107	0,0313	0,0003		2018	0,0017	0,0451	0,0313	0,0014
	2019	0,0053	0,0048	0,0272	0,0001		2019	0,0017	0,0845	0,0272	0,0023
						BACA	2015	0,0044	0,0078	0,0335	0,0003
							2016	0,0065	0,0318	0,0302	0,001
							2017	0,0051	0,0278	0,0361	0,001
							2018	0,0056	0,0297	0,0313	0,0009
							2019	0,0009	0,0354	0,0272	0,001

Source : processed researcher data (2023)

Basedon the data in table 1 above, the decrease in the *value of Return On Asset* (ROA) decreased in Bank Danamon Indonesia Tbk companies occurred in 2018 from the previous year by 0.23% from 2.04% to   1.81% in 2018, this is due to a decrease in profit before tax decreased due to operating income experiencing a decrease due to provincial revenues and commissions experienced a decline that resulted

in a decrease in profit before tax. In the company PT Bank Ganesha Tbk there was a decrease in 2018 from the previous year by 0.93% from 1.04% to 0.11% in 2018, which was caused by a decrease in profit before tax decreased due to operating expenses increased due to an increase in general and administrative expenses as well as in labor expenses, therefore profit before tax decreased. In the company PT Bank Maybank Indonesia Tbk there was a decrease occurred in 2019 from the previous year by 0.17% from 1.16% to 0.99% in 2019, this was due to an increase in fixed assets but on the other hand operating income decreased, meaning that the company could not be said to be able to manage its assets effectively for the company's operational activities.

From the analysis of the decline in Return On Asset (ROA) that occurred in each company, it shows that companies that experienced a decrease in *Return On Asset* (ROA) were caused by an increase in operating costs except for Bank Danamon Indonesia Tbk which was caused by a decrease in company revenue.

Based on table 1, the NPL data of all banks in the 2015-2019 period is still below 5%, except for BSIM in 2019 the amount of NPL is 8.45%, this is because BSIM could not survive at the beginning of the Covid-19 virus pandemic. Meanwhile, the amount of inflation every year is still considered stable ranging from 2% to 3%.

3.2 t test (Partial)

This test aims to find out whether a free variable or an independent variable (X) partially (singly) affects a bound variable or a dependent variable (Y). The partial test can be known from the sig value (must be smaller than 0.05) and by using the comparison between t_{count} and t_{table}. If t count > t table then the research hypothesis is partially accepted (significant) while if t_{count} < t_{table} then the hypothesis is partially rejected (insignificant). While Test F is carried out to test together or simultaneously independent variables against dependent variables.

Table 2 t (Partial) tests
Coefficients[a]

Type		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.018	.015		**1.151**	.256
	NPL	-.421	.574	-1.042	**-.734**	.467
	INFLATION	-.149	.497	-.073	**-.300**	.766
	X Interactive	10.430	19.171	.760	**.544**	.589

a. Dependent Variable: ROA

Table 2 F Tests (Simultaneous)
ANOVA[a]

Type		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.000	3	.000	**1.281**	.294[b]
	Residual	.002	41	.000		
	Total	.002	44			

a. Dependent Variable: ROA
b. Predictors: (Constant), X interactive, Inflation, NPL

The Non Performing Loan (NPL) variable has a significant value of 0.467 > 0.05, the Inflation variable has a signigikan value of 0.766 > 0.05, the Interactive X variable has a significant value of 0.589 > 0.05 it can be concluded that these three variables have no significant influence between *Non Performing Loan* (NPL) and Return On Asset (ROA), Inflation with *Return On Asset* (ROA) , X Interactive with *Return On Asset* (ROA) has a significant value of 0.294 > 0.05, it can be concluded that together there is no significant influence between Non *Performing* Loan (NPL), *Non Performing Loan* (NPL) variable has a significant value of 0.467 > 0.05, Inflation variable has a signigikan value of 0.766 > 0.05, variable X Interactive has a value significant 0.589 > 0.05 it can be concluded that the three variables have no significant influence between *Non Performing Loan* (NPL) and Return On Asset (ROA), Inflation with Return On Asset (ROA), X Interactive with *Return On Asset* (ROA).

3.3 Coefficient of determination

Table 3 coefficients of determination
Model Summary

Type	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.293a	.086	.019	.0061530

a. Predictors: (Constant), X Interactive, Inflation, NPL

Based on Table 10 It can be explained that after the existence of the moderation variable the value of R *Square* increases from 0.078 or 7.80% to 0.086 or 8.60%, so the hypothesis is accepted it can be said that the existence of the variable Inflation as a moderation variable can increase or strengthen the influence of the variable NPL as X1 on the variable ROA. The Adjusted R Square value obtained a value of 0.019, meaning that the influence of the NPL, Inflation and Interactive X variables on ROA was 1.90%.

4. CONCLUSION

Based on the results of the research analysis that has been carried out, it can be concluded that before the interaction variable, that the R *Square* value was 0.078, it can be said that the NPL variable affects the ROA variable by 0.078 or 7.80%. The Adjusted R Square value obtained a value of 0.078, meaning that the effect of the NPL variable on ROA was 7.80%. It can also be explained that after the existence of a moderation variable or the presence of an interaction variable the value of R *Square* increases from 0.078 or 7.80% to 0.086 or 8.60%, so the hypothesis is accepted it can be said that the existence of the Inflation variable as a moderation variable can increase the influence of the NPL variable as X1 on the ROA variable. The Adjusted R Square value obtained a value of 0.019, meaning that the influence of the NPL, Inflation and Interactive X variables on ROA was 1.90%.

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