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The Consequences of Interest Rate Risk and Credit Risk on Profitability (Empirical Study on Banking Companies Listed on the Indonesia Stock Exchange)

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Abstract: This research aims to test and analyze the influence of interest rate risk and credit risk on profitability (empirical study of banking companies listed on the Indonesian Stock Exchange). The population in this study was 43 companies obtained using a purposive sampling method on Banking companies during the 2020-2022 period and based on predetermined criteria, a sample of 34 manufacturing companies listed on the Indonesia Stock Exchange was obtained. The total sample data for the 2020-2022 period is 102 samples. The analysis method used is multiple linear analysis with the help of SPSS software. The research results show that interest rate risk have a positive and significant effect on the profitability of banking companies listed on the Indonesian Stock Exchange in 2020-2022. And credit risk has a negative and significant impact on profitability in banking companies listed on the Indonesian Stock Exchange in 2020-2022.

Keywords: Interest Rate Risk, Credit Risk, and Profitability

INTRODUCTION

The overall economy benefits from the effective and efficient operation of banks. This is due to the bank's role in intermediation, channeling funds from economic units with surplus funds to those in need of capital. Banks, as financial institutions with intermediation functions, can be classified as an industry capable of transforming savings into investments. Given this strategic role, it is not surprising that banks receive significant attention from the government. Banks are businesses laden with risks that can impact the banking system and have severe repercussions on the overall economy. Additionally, banks facilitate the payment system, ensuring that economic activities run smoothly.

With an efficient, secure, and smooth payment system, the economy can function effectively. Banks also serve as a medium for transmitting monetary policy implemented by the central bank, as monetary policy aims to maintain price stability and economic growth. Given their critical role in the economy, every country strives to ensure that the banking sector remains healthy, safe, and stable. According to the Indonesian Law Number 10 of 1998, dated November 10, 1998, concerning Banking, a bank is defined as a business entity that collects funds from the public in the form of deposits and channels them to the public in the form of credit or other forms to improve the living standards of the people (Kasmir, 2014).

The health of a bank is assessed based on its financial statements for a specific period according to Bank Indonesia standards. Generally, the assessment of a bank's health uses five aspects known as CAMEL (Capital, Assets, Management, Earnings, Liquidity). The capital aspect includes CAR (Capital Adequacy Ratio), the assets aspect includes NPL (Non-Performing Loans), the earnings aspect includes ROA (Return on Assets) and BOPO (Operating Expenses to Operating Income), and the liquidity aspect includes LDR (Loan to Deposit Ratio). These aspects are then evaluated using financial ratios to assess the bank's financial condition. One measure of a bank's health or banking performance is profitability, which assesses management effectiveness based on results from sales and investments. Profitability is a key indicator of a bank's performance. According to Kasmir (2014:196), profitability ratios assess a company's ability to generate profits and provide a measure of the effectiveness of management. According to Bank Indonesia in Regulation 13/01/PBI/2011, the ROA ratio can be measured by the ratio of profit before tax to total assets. The larger the ROA of a bank, the greater its profitability and the better the bank's position in terms of asset utilization.

One factor influencing profitability is interest rate risk. Interest rate risk is a common risk faced by financial institutions, arising from changes in market interest rates. If not managed properly, interest rate risk can lead to losses for financial institutions. According to Bank Indonesia Regulation No. 17/11/PBI/2015, Interest Rate Risk is the risk of loss arising from changes in the price of financial instruments in the Trading Book due to interest rate changes. To measure the interest rate received by banks from their activities, ratio analysis is used. One of the ratios employed is Net Interest Margin (NIM). Dendawijaya (2015:122) defines Net Interest Margin (NIM) as a ratio used to measure a bank's management capability in managing its productive assets to generate net interest income. A higher NIM indicates greater interest income from productive assets managed by the bank, thereby reducing the likelihood of the bank facing problems.

Besides interest rate risk, credit risk also affects profitability. Credit risk arises from the failure or inability of borrowers to repay loans along with interest as per the agreed terms. The financial ratio used as a proxy for credit risk is Non-Performing Loan (NPL). Non-Performing Loan (NPL) is the ratio of problematic loans to total loans. This ratio indicates that a higher NPL ratio reflects poorer loan quality (Riyanto, 2011). According to Bank Indonesia in Regulation 13/01/PBI/2011, an ideal NPL ratio is 5%.

The phenomenon observed is that the NIM values for 2020 were 6.6%, for 2021 were 6.54%, and for 2022 were 6.62%, all of which remain stable, potentially causing an increase in ROA despite fluctuations. Meanwhile, the NPL value for Bank Tabungan Negara showed fluctuations, with values of 1.69% in 2020, a decrease to 1.26% in 2021, and an increase back to 1.26% in 2022. This impacts the ROA value, where high NPL values lead to lower ROA, such as 3.14%, and vice versa.

Interest rate risk, measured using the NIM ratio, has a positive and significant effect on profitability measured by the ROA ratio. This result is consistent with previous studies (Handayani, 2017; Prastowo, et al., 2018; Khotijah, et al., 2020). However, it contrasts with findings by Pinasti & Mustikawati (2018) and Dini & Manda (2020), which indicated that NIM

ratio negatively affects ROA. Furthermore, credit risk, measured by the NPL ratio, can negatively and significantly affect profitability measured by ROA, supported by earlier studies (Handayani, 2017; Dewi & Srihandoko, 2018; Alexander, 2021). In contrast, research by Pinasti & Mustikawati (2018) found that NPL ratio has a positive and insignificant effect on ROA. Based on the explanation of the phenomenon and previous research results, the author deems it important to investigate whether profitability can be influenced by interest rate risk and credit risk. Therefore, the title of this study is "The Consequences of Interest Rate Risk and Credit Risk on Bank Profitability (Empirical Study on Banking Companies Listed on the Indonesia Stock Exchange)".

METHOD

This study employs a quantitative research approach, which uses numerical data to explain the relationships between the variables studied, test hypotheses or theories, and observe general phenomena. The independent variables in this study are Interest Rate Risk measured by Net Interest Margin (NIM) (X1) and Credit Risk measured by Non-Performing Loan (NPL) (X2), while the dependent variable is Profitability measured by Return on Assets (ROA) (Y). The population for this study includes all banking companies listed on the Indonesia Stock Exchange from 2020 to 2022, totaling 47 companies, as obtained from the official website of the Indonesia Stock Exchange. The sampling method used is non-probability sampling with purposive sampling technique, resulting in 34 sampled companies.

The data analysis used in this study is multiple regression analysis. Hypothesis testing is conducted using partial tests (T-test) and coefficient of determination tests (R2-test).

The regression model used is as follows:

$$Y = a + b_1X_1 + b_2X_2 + e$$

RESULTS AND DISCUSSION

Data Description of Research Variables

This study utilizes financial statements and annual reports from banking companies listed on the Indonesia Stock Exchange (IDX) for the years 2020-2022.

The values of interest rate risk, measured using the Net Interest Margin (NIM) ratio, for banking companies listed on the IDX during the period 2020-2022 are presented in Table 1 below:

Table 1. Interest Rate Risk 2020-2022

No.	Company name	Code	Year	NIM
1.	Bank IBK Indonesia Tbk.	AGRS	2020	2,08
			2021	2,62
			2022	2,65
2.	Bank Amar Indonesia Tbk.	AMAR	2020	13,25
			2021	11,80
			2022	15,87
3.	Bank MNC Internasional Indonesia Tbk.	BABP	2020	4,01
			2021	3,81
			2022	4,72
4.	Bank Central Asia Tbk.	BBCA	2020	5,70
			2021	5,10
			2022	5,34
5.	Allo Bank Indonesia Tbk.	BBHI	2020	2,44
			2021	4,63
			2022	6,70

6.	Bank KB Bukopin Tbk.	BBKP	2020	0,61
			2021	1,25
			2022	1,17
7.	Bank Mestika Dharma Tbk.	BBMD	2020	6,66
			2021	6,54
			2022	6,62
8.	Bank Negara Indonesia (Persero) Tbk.	BBNI	2020	4,50
			2021	4,67
			2022	4,81
9.	Bank Rakyat Indonesia (Persero) Tbk.	BBRI	2020	6,00
			2021	6,89
			2022	6,80
10.	Bank Bisnis Internasional Tbk	BBSI	2020	7,10
			2021	7,31
			2022	5,22
11.	Bank Tabungan Negara (Persero) Tbk.	BBTN	2020	3,06
			2021	3,99
			2022	4,40
12.	Bank Neo Commerce Tbk.	BBYB	2020	4,03
			2021	5,15
			2022	13,83
13.	Bank JTrust Indonesia Tbk.	BCIC	2020	0,22
			2021	0,82
			2022	2,77
14.	Bank Danamon Indonesia Tbk.	BDMN	2020	5,02
			2021	5,19
			2022	5,18
15.	Bank Pembangunan Daerah Banten Tbk.	BEKS	2020	0,56
			2021	1,28
			2022	2,68
16.	Bank Ganesha Tbk.	BGTG	2020	3,77
			2021	3,02
			2022	3,65
17.	Bank Ina Perdana Tbk.	BINA	2020	3,40
			2021	2,25
			2022	3,49
18.	Bank Pembangunan Daerah Jawa Timur Tbk.	BJTM	2020	5,55
			2021	5,11
			2022	5,11
19.	Bank QNB Indonesia Tbk.	BKSW	2020	1,61
			2021	2,34
			2022	3,19
20.	Bank Mandiri (Persero) Tbk.	BMRI	2020	4,48
			2021	4,73
			2022	5,16
21.	Bank Bumi Arta Tbk.	BNBA	2020	4,17
			2021	4,32
			2022	4,64
22.	Bank CIMB Niaga Tbk.	BNGA	2020	4,75
			2021	4,71
			2022	4,49
	Bank Maybank Indonesia Tbk.		2020	3,79
			2021	3,95

23.		BNII	2022	4,06
			2020	4,56
24.	Bank Permata Tbk.	BNLI	2021	4,02
			2022	4,33
			2020	6,25
25.	Bank Sinarmas Tbk.	BSIM	2021	5,79
			2022	5,68
			2020	2,68
26.	Bank Of India Indonesia Tbk	BSWD	2021	2,95
			2022	3,30
			2020	4,44
27.	Bank BTPN Tbk.	BTPN	2021	4,64
			2022	3,99
			2020	0,82
28.	Bank Victoria Internasional Tbk.	BVIC	2021	2,36
			2022	3,52
			2020	0,47
29.	Bank Mayapada Internasional Tbk.	MAYA	2021	0,69
			2022	1,92
			2020	4,42
30.	Bank Mega Tbk.	MEGA	2021	4,75
			2022	5,42
			2020	3,96
31.	Bank OCBC NISP Tbk.	NISP	2021	3,82
			2022	4,04
			2020	3,62
32.	Bank Nationalnobu Tbk.	NOBU	2021	3,64
			2022	3,52
			2020	4,46
33.	Bank Pan Indonesia Tbk.	PNPB	2021	4,88
			2022	5,20
			2020	3,82
34.	Bank Woori Saudara Indonesia 1906 Tbk.	SDRA	2021	4,16
			2022	4,41

Source: Indonesia Stock Exchange (Processed Data)

The value of credit risk, measured using the Non-Performing Loan (NPL) ratio for banking companies listed on the Indonesia Stock Exchange (IDX) for the period 2020-2022, is presented in Table 2 below:

Table 2. Credit Risk 2020-2022

No.	Company Name	Code	Year	NPL
			2020	5,14
1.	Bank IBK Indonesia Tbk.	AGRS	2021	2,07
			2022	1,99
			2020	6,93
2.	Bank Amar Indonesia Tbk.	AMAR	2021	6,58
			2022	6,09
			2020	5,69
3.	Bank MNC Internasional Indonesia Tbk.	BABP	2021	4,42
			2022	4,53
			2020	1,79
4.	Bank Central Asia Tbk.	BBCA	2021	2,16
			2022	1,71

5.	Allo Bank Indonesia Tbk.	BBHI	2020	2,76
			2021	0,52
			2022	0,01
6.	Bank KB Bukopin Tbk.	BBKP	2020	10,16
			2021	10,66
			2022	6,56
7.	Bank Mestika Dharma Tbk.	BBMD	2020	1,69
			2021	1,18
			2022	1,26
8.	Bank Negara Indonesia (Persero) Tbk.	BBNI	2020	4,25
			2021	3,70
			2022	2,81
9.	Bank Rakyat Indonesia (Persero) Tbk.	BBRI	2020	2,94
			2021	3,08
			2022	2,82
10.	Bank Bisnis Internasional Tbk.	BBSI	2020	0,89
			2021	0,53
			2022	1,84
11.	Bank Tabungan Negara (Persero) Tbk.	BBTN	2020	4,37
			2021	3,70
			2022	3,38
12.	Bank Neo Commerce Tbk.	BBYB	2020	4,05
			2021	1,75
			2022	2,56
13.	Bank JTrust Indonesia Tbk.	BCIC	2020	4,97
			2021	3,90
			2022	1,80
14.	Bank Danamon Indonesia Tbk.	BDMN	2020	2,98
			2021	2,84
			2022	2,86
15.	Bank Pembangunan Daerah Banten Tbk.	BEKS	2020	22,27
			2021	14,09
			2022	9,45
16.	Bank Ganesha Tbk.	BGTG	2020	5,49
			2021	5,13
			2022	2,01
17.	Bank Ina Perdana Tbk.	BINA	2020	1,43
			2021	2,62
			2022	1,73
18.	Bank Pembangunan Daerah Jawa Timur Tbk.	BJTM	2020	4,00
			2021	4,08
			2022	2,83
19.	Bank QNB Indonesia Tbk.	BKSW	2020	4,66
			2021	0,08
			2022	0,38
20.	Bank Mandiri (Persero) Tbk.	BMRI	2020	3,29
			2021	2,81
			2022	1,88
21.	Bank Bumi Arta Tbk.	BNBA	2020	2,63
			2021	3,04
			2022	4,56
			2020	3,65
			2021	3,51

22.	Bank CIMB Niaga Tbk.	BNGA	2022	2,84
			2020	4,13
23.	Bank Maybank Indonesia Tbk.	BNII	2021	4,04
			2022	3,81
			2020	2,90
24.	Bank Permata Tbk.	BNLI	2021	3,20
			2022	3,13
			2020	4,75
25.	Bank Sinarmas Tbk.	BSIM	2021	4,64
			2022	7,99
			2020	4,95
26.	Bank Of India Indonesia Tbk	BSWD	2021	9,08
			2022	9,07
			2020	1,15
27.	Bank BTPN Tbk.	BTPN	2021	1,63
			2022	1,32
			2020	7,58
28.	Bank Victoria Internasional Tbk.	BVIC	2021	7,27
			2022	4,23
			2020	4,09
29.	Bank Mayapada Internasional Tbk.	MAYA	2021	3,93
			2022	4,70
			2020	1,39
30.	Bank Mega Tbk.	MEGA	2021	1,12
			2022	1,23
			2020	1,93
31.	Bank OCBC NISP Tbk.	NISP	2021	2,36
			2022	2,42
			2020	0,21
32.	Bank Nationalnobu Tbk.	NOBU	2021	0,58
			2022	0,41
			2020	2,93
33.	Bank Pan Indonesia Tbk.	PNPB	2021	3,73
			2022	3,58
			2020	1,12
34.	Bank Woori Saudara Indonesia 1906 Tbk.	SDRA	2021	0,93
			2022	1,05

Source: Indonesia Stock Exchange (Processed Data)

The value of profitability, measured using the Return on Assets (ROA) ratio for banking companies listed on the Indonesia Stock Exchange (IDX) for the period 2020-2022, is shown in Table 3 below:

Table 3. Profitability 2020-2022

No.	Company Name	Code	Year	ROA
			2020	-1,75
1.	Bank IBK Indonesia Tbk.	AGRS	2021	0,08
			2022	0,66
			2020	0,74
2.	Bank Amar Indonesia Tbk.	AMAR	2021	0,02
			2022	4,75
			2020	0,15
3.	Bank MNC Internasional Indonesia Tbk.	BABP	2021	0,18
			2022	0,08

4.	Bank Central Asia Tbk.	BBCA	2020	3,32
			2021	3,41
			2022	3,91
5.	Allo Bank Indonesia Tbk.	BBHI	2020	2,04
			2021	4,74
			2022	3,55
6.	Bank KB Bukopin Tbk.	BBKP	2020	-4,61
			2021	-2,93
			2022	0,27
7.	Bank Mestika Dharma Tbk.	BBMD	2020	3,14
			2021	4,31
			2022	3,97
8.	Bank Negara Indonesia (Persero) Tbk.	BBNI	2020	0,54
			2021	1,43
			2022	2,62
9.	Bank Rakyat Indonesia (Persero) Tbk.	BBRI	2020	1,98
			2021	2,72
			2022	3,76
10.	Bank Bisnis Internasional Tbk.	BBSI	2020	4,15
			2021	4,97
			2022	3,34
11.	Bank Tabungan Negara (Persero) Tbk.	BBTN	2020	0,69
			2021	0,81
			2022	1,02
12.	Bank Neo Commerce Tbk.	BBYB	2020	0,34
			2021	-3,71
			2022	-2,02
13.	Bank JTrust Indonesia Tbk.	BCIC	2020	-3,36
			2021	-3,06
			2022	0,17
14.	Bank Danamon Indonesia Tbk.	BDMN	2020	0,87
			2021	1,02
			2022	2,14
15.	Bank Pembangunan Daerah Banten Tbk.	BEKS	2020	-3,80
			2021	-2,94
			2022	-3,46
16.	Bank Ganesha Tbk.	BGTG	2020	0,10
			2021	0,23
			2022	0,60
17.	Bank Ina Perdana Tbk.	BINA	2020	0,51
			2021	0,44
			2022	1,09
18.	Bank Pembangunan Daerah Jawa Timur Tbk.	BJTM	2020	1,95
			2021	2,05
			2022	1,95
19.	Bank QNB Indonesia Tbk.	BKSW	2020	-1,24
			2021	0,50
			2022	1,42
20.	Bank Mandiri (Persero) Tbk.	BMRI	2020	1,64
			2021	2,53
			2022	3,30
21.	Bank Bumi Arta Tbk.	BNBA	2020	0,69
			2021	0,77

			2022	0,59
			2020	0,99
22.	Bank CIMB Niaga Tbk.	BNGA	2021	1,75
			2022	2,06
23.	Bank Maybank Indonesia Tbk.	BNII	2020	0,82
			2021	1,02
			2022	0,79
24.	Bank Permata Tbk.	BNLI	2020	0,97
			2021	0,73
			2022	1,10
25.	Bank Sinarmas Tbk.	BSIM	2020	0,30
			2021	0,34
			2022	0,54
26.	Bank Of India Indonesia Tbk	BSWD	2020	0,49
			2021	-1,15
			2022	0,14
27.	Bank BTPN Tbk.	BTPN	2020	1,01
			2021	1,41
			2022	1,52
28.	Bank Victoria Internasional Tbk.	BVIC	2020	-1,26
			2021	-0,71
			2022	1,47
29.	Bank Mayapada Internasional Tbk.	MAYA	2020	0,12
			2021	0,07
			2022	0,04
30.	Bank Mega Tbk.	MEGA	2020	3,64
			2021	4,22
			2022	4,00
31.	Bank OCBC NISP Tbk.	NISP	2020	1,47
			2021	1,55
			2022	1,86
32.	Bank Nationalnobu Tbk.	NOBU	2020	0,57
			2021	0,54
			2022	0,64
33.	Bank Pan Indonesia Tbk.	PNPB	2020	2,08
			2021	1,73
			2022	1,83
34.	Bank Woori Saudara Indonesia 1906 Tbk.	SDRA	2020	1,84
			2021	2,00
			2022	2,33

Source: Indonesia Stock Exchange (Processed Data)

Results of Inferential Statistical Analysis

Calculations were conducted using SPSS 23 for Windows, yielding the following results:

Table 4. Multiple Linear Regression Analysis Results

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	4.452	2.462	1.978	.031
	Interest Rate Risk (X1)	.275	.056	.350	.002

Credit Risk (X2)	-.338	.045	-.536	-7.480	.000
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a. Dependent Variable: Profitabilitas

Source: Processed Data SPSS 23 (2023)

Based on Table 4 above, a multiple linear regression model can be derived where the beta values are taken from the Unstandardized Coefficients as follows:

$$Y = a + b_1X_1 + b_2X_2 + e$$

$$Y = 4.452 + 0.275X_1 + (-0.338)X_2 + e$$

From the above results, the explanation is as follows:

1. **Constant (b0)/a = 4.452**, which means the constant value without the variables of credit risk and interest rate risk, or assumed to be zero, the profitability value is ($Y = 4.452$).
2. **Coefficient X1 (b1 = 0.257)** shows that the interest rate risk variable (X1) has a positive and significant effect on profitability (Y). If the interest rate risk variable is increased by one unit, profitability will increase by 2.57%. The direction of the regression coefficient is positive, indicating that interest rate risk is directly proportional to profitability.
3. **Coefficient X2 (b2 = -0.338)** shows that the credit risk variable (X2) has a negative and significant effect on profitability (Y). In other words, if the credit risk variable is increased by one unit, profitability will decrease by 3.38%. The direction of the regression coefficient is negative, indicating that the credit risk variable is inversely proportional to profitability.

Hypothesis Testing Results

a. T-test Results (Partial Test)

Table 5. T-test Results Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant) (a)	4.452	2.462		1.978	.031
	Interest Rate Risk (X1)	.275	.056	.350	4.893	.002
	Credit Risk (X2)	-.338	.045	-.536	-7.480	.000

a. Dependent Variable: Profitabilitas

Source: Processed Data SPSS 23 (2023)

Based on the table above, it can be seen that:

1. The calculated t-value for the coefficient of the interest rate risk variable is 4.893, which is greater than the t-table value of 1.98447. Thus, at a 5% error level, H_0 is rejected and H_a is accepted. This means that the interest rate risk variable (X1) has a positive and significant effect on profitability (an empirical study on banking companies listed on the Indonesia Stock Exchange).
2. The calculated t-value for the coefficient of the credit risk variable is -7.480, which is greater than the t-table value of 1.98447. Thus, at a 5% error level, H_0 is rejected and H_a is accepted. This means that the credit risk variable (X2) has a negative and significant effect on profitability (an empirical study on banking companies listed on the Indonesia Stock Exchange).

b. Results of the Coefficient of Determination (R²) Test

Table 6. Results of the Coefficient of Determination (R²) Test Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.724 ^a	.524	.509	1.36770

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.724 ^a	.524	.509	1.36770

a. Predictors: (Constant), Interest rate risk dan Credit risk

b. Dependent Variable: Profitability

Source: Processed Data SPSS 23 (2023)

Based on the results in Table 6 above, it shows that the coefficient of determination (R²) can be seen in the R Square value of 0.524 or 52.4%. Therefore, it can be said that the impact on profitability is caused by interest rate risk and credit risk by 52.4%, while the remaining 48.6% is due to other variables not examined in this study, such as liquidity, solvency, current ratio, retained earnings, and so on.

The Effect of Interest Rate Risk on Profitability (An Empirical Study on Banking Companies Listed on the Indonesia Stock Exchange)

The first hypothesis proposed partially is H1: Interest rate risk has a positive and significant effect on profitability (an empirical study on banking companies listed on the Indonesia Stock Exchange). Statistical testing, as seen in the t-value of 4.893, is greater than the t-table value of 1.98447, with a significance value of 0.002, which is less than 0.05, indicating that the interest rate risk variable (X1) has a positive and significant effect on profitability (Y). It can be said that the higher the interest rate or the Net Interest Margin (NIM) ratio, the higher the profitability of a company. This research result is in line with studies conducted by Handayani (2017), Prastowo et al. (2018), and Khotijah et al. (2020), which state that interest rate risk has a positive and significant effect on profitability. However, these results differ from the research by Pinasti & Mustikawati (2018) and Dini & Manda (2020), which state that the NIM ratio has a negative effect on ROA.

The Effect of Credit Risk on Profitability (An Empirical Study on Banking Companies Listed on the Indonesia Stock Exchange)

The second hypothesis proposed partially is H2: Credit risk has a negative and significant effect on profitability (an empirical study on banking companies listed on the Indonesia Stock Exchange). Statistical testing, as seen in the t-value of -7.480, is greater than the t-table value of 1.98447, with a significance value of 0.000, which is less than 0.05, indicating that the credit risk variable (X3) has a negative and significant effect on profitability (Y). It can be said that if a company has an NPL ratio that exceeds the predetermined threshold, it can result in a decrease in the company's profitability.

This research result is consistent with studies conducted by Handayani (2017), Dewi & Srihandoko (2018), and Alexander (2021), which state that credit risk has a negative and significant effect on profitability. However, these results differ from the research by Pinasti & Mustikawati (2018), which states that the NPL ratio has a positive and insignificant effect on ROA.

CONCLUSION

Based on the research results described earlier, it can be concluded that:

1. The consequence of interest rate risk on profitability (an empirical study on banking companies listed on the Indonesia Stock Exchange) is a significant positive effect. This indicates that the higher the company's interest rate risk, the higher the profitability obtained.
2. The consequence of credit risk on profitability (an empirical study on banking companies listed on the Indonesia Stock Exchange) is a significant negative effect. This indicates that the higher the company's credit risk, the lower the profitability obtained.

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