# Cost Of Fund Deposit Impact At The Level Of Interest Credit In The Bank Group In Indonesia

# Denny Saputera<sup>1</sup>, Mohd Haizam Saudi<sup>2</sup>, Obsatar Sinaga<sup>3</sup>

<sup>1</sup>Widyatama University
<sup>2</sup>Widyatama University
<sup>3</sup>Padjadjaran University
<sup>1</sup>Denny.saputera@widyatama.ac.id

Article History: Received: 10 January 2021; Revised: 12 February 2021; Accepted: 27 March 2021; Published online: 20 April 2021

Abstract: The purpose of this research is that the surplus unit and deficit unit in the banking world are the main activities of its business, in the surplus unit the bank issues a number of expenses (costs) of funds collected in the form of Cost of Fund (COF) where the costs that must be debited by the bank for each fund that has been collected (surplus units) from various sources before deducting the minimum mandatory liquidity charges / costs that must be incurred by the bank. A very meaningful source of funds for banks with the aim of increasing the amount of credit / income that they want to distribute to customers, in this case banks channeling credit really need adequate / available funds. The variables of this study consist of Cost of Funds (COF) deposits and credit interest rates. The final result of this study is that the cost of funds (COF) deposits has a significant effect on loan interest rates.

Keywords: Cost Of Fund Deposits, Interest Rates On Credit, Group Of Banks In Indonesia

#### 1. Introduction

The development in the banking industry continues to drive the rapid growth and development of Indonesia, both in terms of products, the number of banks and branches that are increasing, which of course can reach all levels of society who need banking services. Here also the bank is one of the institutions in financial institutions which aims as an intermediary (intermediary). In carrying out its business activities, the bank seeks to raise funds (surplus units) and deficit units as optimal as possible.

In the unit surplus, the bank issues a number of costs of funds collected in the form of Cost of Fund(COF). Cost of Fund(COF) is an expense that must be debited (out) for each fund raised (surplus units) from various sources before deducting the minimum mandatory liquidity burden that must be maintained by each bank. The level of the cost of funds can be influenced by factors, namely the source, volume and duration of the source.

The more (collected) unit surplus is obtained, the greater the cost that must be incurred by the bank on these funds, therefore it is necessary to pay close attention to the source of funds collected by the bank so that the profit obtained is optimal and the customer is also satisfied with the bank's performance.

According to Putra (2011), the intense competition in banking forces to be able to redesign business and marketing strategies to maintain or increase competitive advantage. In this case, the bank must identify who can compete more effectively and demonstrate the superiority of the product being offered.

The bank's business in obtaining funds is of course directly proportional to the public (general) who want or want their money to be in a safe and profitable place as a means of investment. To get funds from other parties, of course, must have an attraction in the hope of getting funds from the public (general), in this case the bank provides a reward in the form of bank interest so that, want to save funds in the bank. The source of funds is a very meaningful matter for the bank to increase the total. credit to be disbursed to customers. In distributing credit, banks really need the availability of funds. Continue to optimize the source of bank funds, so there is also a big chance for the bank to achieve its goals. The tools used to withdraw funds from customers are deposits, current accounts or savings accounts.

Of the three means of savings, time deposits have the highest interest rates on savings compared to others. Deposits cannot be withdrawn at any time with the exception of the bank's MOU with its customers.

In a condition where the bank needs funds to pay obligations that are due and there is a credit application from the public (general), the bank in this case raises the interest rate (deposit interest rate) so that the need for funds for lending needs can be met. The aim of raising the deposit interest rate is to stimulate the appeal of the public (general) to deposit funds in the form of deposits. Determination of interest rates is the main thing for banks because errors in setting interest rates have a negative impact on banks. If it is too high in determining the deposit interest rate, it will result in a high cost burden in the form of high funds. The interest expense (cost) borne by the bank must be managed by sound management. Expenses (costs) that must be calculated as carefully as possible so that the level of profit obtained by the bank can be achieved.

The amount of expenses (costs) that must be incurred by a bank to obtain funds certainly has an impact on lending, the higher the costs incurred by the bank, the greater the chance that the credit interest rate set by the bank will be higher. This is so that the credit interest rate can cover the expenses (costs) incurred by the bank.

Credit interest rates can affect the value in lending from a bank. When credit interest rates increase, customers tend to be more retained from being able to borrow funds from the bank. Until the profits earned by the bank will shrink because of the low interest income. An increase in loan interest rates results in bad credit, as a result, customers who borrow funds from the bank may not be able to pay their debts. Saputra (2012; Collet et al., 2019) in his research argues that what is done in Islamic banking shows that credit interest rates do not affect profitability, on the other hand Wulandari's (2011) research on general bank credit interest rates negatively affects profitability.

### 2. LITERATUR REVIEW

#### Bank

As for the definition of a bank according to the Republic of Indonesia Law No.10 of 1998 dated 10 Nov 1998 concerning amendments to Law No.7 of 1992 concerning banking, namely: "Business entities that collect funds from the public (general) in the form of deposits and channel them to the public (general) in the form of credit. or other forms in order to improve the standard of living of many (general) people. "

#### **Principles, Objectives and Functions of Banks**

Articles 2-4 of Law No.7 of 1992 Concerning Banking as amended by Law No. 10 year 1998, where the principles, functions and objectives are:

**Principles** : Indonesian banking in carrying out its business activities is based on economic democracy using the principle of prudence.

**Objectives** : The main function of banking is to collect and channel public funds.

**Functions** : Indonesian banking aims to support the implementation of national development in the context of increasing equity, economic growth and national stability towards the improvement of the people at large.

#### **Types of Banks**

According to Law No.10 of 1998 concerning amendments to Law No.7 of 1992 concerning | bank banking can be viewed from various aspects, namely:

1. In terms of its types:

a) Commercial banks which carry out business activities conventionally or based on sharia principles, in their activities provide services (interest) in the flow of payments.

b) Rural Banks: banks that carry out business activities conventionally (generally) or based on sharia principles, which in their activities do not provide services (interest) in the flow of payments.

According to Kasmir (2008), banks in Indonesia are grouped into several types.

1. From function

a) Commercial Bank: which carries out business activities conventionally (generally) or based on sharia principles which in its activities provides services in the flow of payments.

b) Rural Banks: which carry out business activities conventionally or based on sharia principles which in their activities do not provide services in the flow of payments.

2. In terms of ownership

a) Government Bank (Persero): which is established and shares are owned by the government. This bank consists of two banks, namely the central and regional government banks.

b) National Private Banks: which are established by the private sector, namely individuals or institutions, so that all profits are enjoyed by the private sector and if the losses are reversed.

c) Cooperative Bank: which is established by a company legally incorporated as a cooperative and all of its capital belongs to the cooperative.

d) Foreign Bank: established by a foreign government or foreign private sector. All capital is owned by foreign governments or foreign private companies. so that the profit or loss will be owned by foreigners.

e) Joint venture banks whose share ownership is owned by foreign and national private companies. Where most of the share ownership is owned by the national private sector

3. In terms of status

a) Foreign Exchange Bank: has the license (authority) to conduct transactions abroad for foreign currency transactions. The products offered by foreign exchange banks are foreign currency deposits, domestic and foreign transfers

b) Non-Foreign Exchange Banks: those that do not have a license to carry out overseas transaction activities Transactions conducted by non-foreign exchange banks are still limited to domestic activities or transactions only.

4. In terms of Pricing

a) Conventional (general) Banks. growing the majority of conventional (general). In looking for profits and determining prices to customers, banks based on conventional principles use two methods, namely: Setting interest as the price, be it for savings products. and also the price for the product (kedit) which is determined based on the bank's Indonesia is oriented towards the principles of deposits, current accounts, interest rate

b) Sharia Banks Sharia principles are the rules of agreements based on Islamic law between banks and customers for savings and as business financing or other activities Seeking profit and Determining bank prices according to sharia principles, namely

1) Financing of capital goods is based on pure rent in the form of options

2) Profit sharing financing Capital mapping principle

3) The principle of buying and selling with the principle of making a profit

5. From the level

a) Head Office: the head office of all branch offices in the territory of the State and in other countries. His job is to compile operational policies, make strategic planning, and supervise operations in all branch offices.

b) Regional Office: the head office representative who becomes the head of a certain region.

c) Full Branch Office: an office that is authorized from the central or regional levels to conduct all banking transactions.

d) Sub-Branch Offices: limited to banking activities only.

e) Cash Office: the smallest office, cash office activities are only in the form of transactions related to savings, either deposits or withdrawals, current accounts, time deposits, collection, clearing approved by the full branch office as the head office.

## Cost of fund(COF)

Cost of fund (COF) deposit is an expense that must be debited by the bank in the form of deposit funds collected from customers. Time deposits have a higher interest rate than other deposits, the conclusion is that the payment of the cost of funds must be high. How to calculate (formula) cost of fund Cost of fund (COF) deposits (Kasmir, 2008), namely:

Cost of fund (COF) = deposits Interest charged / 100% - Mandatory reserves

#### **Credit Interest Rate**

Credit comes from the Greek word "credere" which means "trust". According to the RI Law on Banking No. 10. Year 1998, which contains "Credit is the provision of money or claims, based on the agreement (agreement) on lending and borrowing between the bank and the borrower (customer), which requires the borrower to settle the debt within the agreed period in exchange for interest".

## 3. RESEARCH METHOD

The purpose of this researcher is to analyze the data described using quantitative methods and statistical data using descriptive statistics, Pearson correlation analysis, simple linear regression analysis and coefficient determination.

In this study, using a conclusive design aims to prove (test) something and assist researchers in determining (choosing) the next conclusion, in which this design has a decision at the end of each research. This conclusive design is divided into two types, namely descriptive research methods predicting data relating to current situations (experienced), attitudes and views that arise today, relationships between variables, contradictions of two or more conditions, differences between facts (M. Subana and Sudrajat, 2005) and the experimental causal method, which aims to obtain the right test in determining the conclusion of a cause-and-effect relationship between variables, centered on solving problems in the present and on actual problems.

The population of this research is banks in Indonesia by taking the economic and financial statistical reports of Indonesia issued by BI. The sample of this research uses a non-probability sample, with saturated sampling, namely the determination of the sample using all members of the population, the number of samples used is the five groups of banks in Indonesia (Government (Persero), Regional, National Private, Mixed Foreign and Conventional (General).

This type of data uses secondary data based on data from 2007 to 2012 (annually), while the data source comes from the Indonesian economic and financial statistical reports published by BI.

Data collection techniques through documentation. The data were obtained through economic and financial statistical reports of Indonesia on bank groups in Indonesia for the last 6 years from 2007 to 2012.

The research variable is the independent variable (free), namely the cost of fund deposits and the dependent variable (dependent), namely the credit interest rate where the variable whose value depends (is influenced) by the independent variable

#### Variables and Measurement Scale

Variabel	Dimensi	Indikator	Skala
		Pengukuran	
<i>Cost of fund</i> deposito	<ul> <li>Tingkat suku bunga deposito</li> </ul>	Hasil perhitungan tingkat suku bunga deposito, dan <i>reserve</i>	Rasio
	• Reserve reqirement	requirement yang mengahasilkan besarnya <i>cost of fund</i> deposito (%)	
Tingkat suku bunga kredit	• Tarif jasa untuk debitur	Besarnya tingkat bunga kredit	Rasio

### **Descriptive Analysis**

#### Cost of Fund Deposits at Bank Group in Indonesia

BI policy requires all banks in Indonesia to reserve 5% of their current assets in Wajob Minium's current account.

The following is the COF data for Banks in Indonesia;

Bank	Tahun	Suku Bunga Deposito	Cost of Fund Deposito
Persero	2007	7,00	7,37
	2008	10,14	10,67
	2009	6,59	6,94
	2010	6,48	6,82
	2011	6,04	6,36
	2012	5,22	5,49
Pemerintah Daerah	2007	7,24	7,62
	Deposito           ro         2007         7,00           2008         10,14         2009         6,59           2010         6,48         2011         6,04           2012         5,22         2009         7,69           2010         8,07         2011         5,92           Daerah         2007         7,24         2009         7,69           2010         8,07         2011         5,92         2012           2011         5,92         2012         2,92         2012         2,92           asional         2007         7,31         2008         11,3         2009         7,02           2010         6,94         2011         6,62         2012         5,96         2011         6,62         2012         5,96         2010         7,69         2011         5,00         2011         5,00         2011         2008         10,78         2010         7,69         2011         5,00         2011         5,00         2012         4,61         1         1         2008         10,75         2009         6,87         2010         6,87         2010         6,87         2010         6,87         2010         6,8	10,35	
	2009	7,69	8,09
	2010	8,07	8,49
	2011	7,39	7,78
	2012	5,92	6,23
Swasta Nasional	2007	7,31	7,69
	2008	11,3	11.89
	2009	7.02	7,39
	2010	6,94	7,30
		6,62	6,97
	2012	5,96	6,27
Asing dan Campuran	2007	7.27	7.65
	2008	10,78	11,35
	2009	6,68	7,03
	2010	7,69	8,09
	2011	5,00	5,26
	2012	4,61	4,85
Umum	2007		7,57
	2008	10,75	11,31
	2009	6,87	7,23
	2010	6,83	7,19
	2011	6,35	6,68
	2012	5,58	5,87

## Investment Credit Interest Rates at Bank Groups in Indonesia

The levels of interest rates for investment credit at bank groups in Indonesia are:

Bank	Tahun	Tingkat Suku Bunga Kredit Investasi
Persero	2007	12,93
	2008	13,85
	2009	12,56
	2010	10,81
	2011	10.39
	2012	10,08
Pemerintah Daerah	2007	14,61
	2008	13,52
	2009	12,54
	2010	12,44
	2011	12.40
	2012	12,25
Swasta Nasional	2007	13,11
	2008	14,85
	2009	13,51
	2010	13.20
	2011	12.64
	2012	11,88
Asing dan Campuran	2007	10,56
	2008	15.00
	2009	12,22
	2010	11,82
	2011	14,89
	2012	9,47
Umum	2007	13.01
	2008	14,40
	2009	12.96
	2010	12,28
	2011	12,04
	2012	11,27

Statistics						
		Cost of Fund Deposito	Tingkat Suku Bunga Kredit			
N	Valid	30	30			
N	Missing	0	0			
Mean		7,6600	12,5830			
Std. Error of Mean		,32730	,26185			
Mediar	n	7,3350	12,5500			
Mode		8,09	9,47°			
Std. Deviation		1,79268	1,43419			
Variance		3,214	2,057			
Range		7,04	5,53			
Minimu	num 4,85		9,47			
Maxim	um	11,89	15,00			
Sum		229,80	377,49			

a. Multiple modes exist. The smallest value is shown

The description of the table above can be described:

a. Cost of Fund Deposit

From secondary data from Indonesian economic financial statistics and data processed cost of fund deposits, the lowest total score was 4.85 and for the highest was 11.89. Mean 7,6600, median 7,3350, std. deviation 1.79268, and variance of 3.214.

b. Credit Interest Rate

From secondary data from Indonesian economic financial statistics and processed data on credit interest rates, the lowest total score is 9.47 and for the highest is 15.00. Mean 12.5830, median 12.5500, std. deviation 1.43419, and variance of 2.057.

#### Normality test

To find out whether data is normally distributed or not, it is using the normality test. The normality test of this study was carried out using the Kolmogorov-Smirnov test.

One-Sar	nple Kolmogoro	v-Smirnov Test	
		Cost of Fund	Tingkat Suku
		Deposito	Bunga Kredit
Ν		30	30
New J December 30	Mean	7,6600	12,5830
Normal Parameters <sup>a,b</sup>	Std. Deviation	1,79268	1,43419
	Absolute	,207	,100
Most Extreme Differences	Positive	,207	,067
	Negative	-,100	-,100
Kolmogorov-Smirnov Z		1,132	,548
Asymp. Sig. (2-tailed)		,154	,925
a. Test distribution is Norma	al.		
b. Calculated from data.			

Based on the Kolmogorov-Smirnov test, the probability value of the two tails test for the cost of fund deposit variable was p = 0.154 and the credit interest rate variable was p = 0.925. Thus, because this probability value is greater than the significant level of 0.05 (5%), it can be concluded that the data comes from a normally distributed population.

## Simple Linear Regression

Simple linear regression analysis is an analytical tool used to determine the magnitude of the influence of the independent variable on the dependent variable.

		Co	efficients			
Model		Unstandardize	ed Coefficients	Standardized T		Sig.
				Coefficients		
		в	Std. Error	Beta		
	(Constant)	8,651	,912		9,491	,000
1	Cost of Fund Deposito	,513	,116	,642	4,426	,000

Based on the Simple Linear Regression table, the following equation can be written:

Y = 8.651 + 0.513X

The equation above can be interpreted as follows:

a = 8.651: this means that if the cost of fund deposits (X) is zero (0), the credit interest rate (Y) will be 8.651. b = 0.513: this means that if the cost of fund deposits (X) increases by one unit, the credit interest rate (Y) will increase by 0.513 units.

## **Pearson Correlation Analysis**

This analysis is used to determine the degree of relationship and contribution of the independent variable with the dependent variable.

Correlations						
		Tingkat Suku Bunga Kredit	Cost of Fund Deposito			
Deserve Constation	TingkatS uku Bunga Kredit	1,000	,642			
Pearson Correlation	Cost of Fund Deposito	,642	1,000			
Sig. (1 tailed)	Tingkat Suku Bunga Kredit		,000,			
Sig. (1-tailed)	Cost of Fund Deposito	,000				
	Tingkat Suku Bunga Kredit	30	30			
N	Cost of Fund Deposito	30	30			

Based on the calculation of SPSS 23, the Pearson correlation analysis obtained a correlation figure of 0.642 indicating a positive correlation, meaning that if the cost of fund deposits is high, the credit interest rate will increase or vice versa. The value of 0.642 (between 0.60 - 0.799) indicates a strong relationship between the independent variable and the dependent variable, according to

Sugiyono's

(2007) correlation interpretation value.

#### Autocorrelation

The autocorrelation test is used to determine whether or not there are deviations from the classic assumptions of autocorrelation, namely the correlation that occurs between the residuals in one observation and another in the regression model.

Model	R	R Square	Adjusted R Square	Std. Error of the	Durbin-Watson			
				Estimate				
1	,642ª	,412	,391	1,11959	2,544			
De la	- Destinations (Operation), Operation (Description							

a. Predictors: (Constant), Cost of Fund Deposito

b. Dependent Variable: Tingkat Suku Bunga Kredit

Based on

the calculation of SPSS version 23, the DW (Durbin-Watson) value is 2.544, when compared with the Dtabel value for the amount of data 30 K = 1, namely dl - du 1.452 - 1.489 then 2.544 > 1.489, it means that there is no positive autocorrelation. Meanwhile, for (4 - d) 4 - 2,544 = 1.456 is between 1.452 - 1.489, then the negative autocorrelation detection test cannot be concluded.

#### **Coefficient of Determination**

The coefficient of determination is used to measure the amount of the contribution of the independent variable to the dependent variable, it can be seen through the value of the coefficient of determination (r2).

Model Summary									
Model	R	R	Adjusted	Std. Error of	(	Change St	atisti	cs	
		Square	R Square	the Estimate	R Square	F	df1	df2	Sig. F
	Change Change Change							Change	
1	,642ª	,412	,391	1,11959	,412	19,587	1	28	,000
e Deed		to - th	Sector Friday	Descrite					

a. Predictors: (Constant), Cost of Fund Deposito

Based on the results of the calculation of SPSS 23, the coefficient of determination is 0.412, so the contribution of cost of fund deposits to the lending rate in the group in Indonesia is 41.2%. While the remaining 58.8% was caused by factors other than the cost of fund deposits.

### Hypothesis testing

Testing this statistical hypothesis with a one-party t test, was carried out to test Ha, and this test was carried out by describing the value of t count with t table at dk = -1 and  $\alpha = 0.05$  or 5% and if tcount fell in the receiving area of Ho, then Ha is still accepted if tcount falls in the area of Ho's rejection, then Ha is rejected.

		Co	efficients <sup>a</sup>			
Model		Unstandardize	ed Coefficients	Standardized t Coefficients		Sig.
		В	Std. Error	Beta		
	(Constant)	8,651	,912		9,491	,000
CostOfFundDeposito		,513	,116	,642	4,426	,000

Based on the table above, if the level of significance is  $\alpha = 0.05$  with 1 party test dk (30 - 1) = 29, indicating that tcount is 4.426> from t table is 2.045, it can be concluded that the variable cost of fund deposits (independent) has a significant effect on the variable level. credit interest rate (dependent). Judging from the significance value of 0.000 which is smaller than 0.05, the variable cost of fund deposits has a significant effect on the variable lending interest rate. Thus the hypothesis put forward by the author is: "if the cost of funds deposits increases, the interest rate on credit will increase", is acceptable.

### 4. Conclusion

The total cost of fund deposits in the Indonesian bank group is obtained The lowest score in this research is 4.85 and for the highest is 11.89. Mean 7,6600, median 7,3350, std. deviation 1.79268, and variance of 3.214. The lending rate at the bank group in Indonesia, the lowest total score in this study was 9.47 and the highest was 15.00. Mean 12.5830, median 12.5500, std. deviation 1.43419, and variance of 2.057. Based on statistical calculations, it is found that the cost of funds deposits has a positive effect on the loan interest rate. The correlation coefficient obtained is in the strong category, namely 0.642, and 41.2%, the magnitude of the loan interest rate is influenced by the cost of fund deposits. Judging from the significance value which is smaller than 0.05, the cost of funds deposits has a significant effect on the credit interest rate. Thus the hypothesis put forward by the researcher regarding the effect of cost of fund deposits on credit interest rates is acceptable.

Deposits are funds from third parties which are important for banks, because deposits function to meet the capital needs of the bank and on the other hand help bank liquidity. The deposit function is very strategic in helping bank operations. Therefore, the determination of deposit interest must be as economical and prudent as possible in order to be profitable for both the bank and the customer. If it is too large, it will have an impact on the cost of funds that must be borne by the bank and will also increase the loan interest rate, but if it is too small it will make customers not interested in saving their funds in the form of deposits.

#### Reference

1. Bank Indonesia, 1992. Act Number 7 of 1992 concerning Banking. (As amended by Law Number 10 of 1998)

2. Bank Indonesia. 1998. Law No.10 of 1998, Concerning Amendments to Law no. 7 of 1992, Jakarta

3. Collet, C., Tozetto, A. V. B., Iha, T., do Nascimento, J. V., Falcão, W. R., & Milistetd, M. (2019). Dynamic Elements of Sports Development: Perceptions of Basketball Coaches. Revista de psicología del deporte, 28(3), 79-85.

4. Cashmere. 2008. Banks and Other Financial Institutions. PT. Raja Grafindo Persada. Jakarta

5. Kamarudin, F., Sufian, F., Nassir, A.M., Anwar N.A.M., Hussain, H.I., (2019) Bank Efficiency in Malaysia a DEA Approach, *Journal of Central Banking Theory and Practice*, 8 (1), 133–162.

6. M. Subana, Sudrajat. 2005, Basics of Scientific Research, Pustaka Setia. Bandung

7. Son, I Wayan. 2011. The Effect Of Quality And Service Value On Customer Loyalty. A Study on the Customers of Commercial Banks in Malang City. Interdisciplinary Journal Of Contemporary Research In Business. Vol. 5 No. 5, pp. 488-504.

8. Saputra, Fangki. 2012. The Effect of Loan Interest Rates on the Amount of Loans and the Impact on Operating Profits. Siliwangi University Thesis.

9. Sugiyono. 2007. Business Research Methods. Alfabeta. Bandung

10. \_\_\_\_\_ 2008. Statistics for Research. Alfabeta. Bandung

11. Wulandari, Sari. 2011. The Effect of LDR and Credit Interest Rates on Interest Income of PT BRI Persero Tbk, Manado Branch. Sam Ratulangi University Thesis.