

Effect of the Government policy in reducing interest rate of Micro Loan (KUR) on migration of Non KUR Loan

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Abstract- This study aims to analyze the influences of three factors: (1) interest rate of KUR Micro loan, (2) interest rate of Non KUR loan and (3) proportional migration of outstanding and borrower bank XYZ, on migration of non KUR loan. Analytical method used is multiple linear regression. The results of the study showed that all the three independent variables have significant negative effect on migration both of outstanding and borrower. The effect of Non KUR loan interest rate on migration differ from the hypothesis. This can be explained because of the difference in the maximum amount of loan that can be borrowed. Non KUR loan product is a credit granting service with the amount of loan up to 200 million, whereby the KUR Micro loan plafond is only up to 25 million. Therefore, it is expected that if there is an increase in interest rate of Non KUR loan will not cause migration.

Index Terms- interest rate, KUR Micro loan, Non KUR loan, migration, borrower, and data panel.

I. INTRODUCTION

1. Background

The role of banks in economic development is to channel funds for economic activities (or provide loans for enterprises). One type of loans which is very common in Indonesia is loan for small and medium enterprises (UMKM). The development of micro small and medium enterprises plays an important role in the Indonesia's economy. admissions in The role of UMKM is considered important in the process of national economic recovery both in order to encourage economic growth and in the absorption of manpower. The following figure of credit distribution and economic growth in the period 2011 to March 2017 taken from the Indonesian Banking Statistics (SPI) period 2017

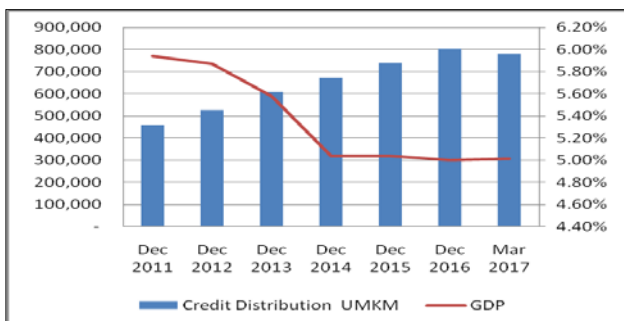


Figure 1 Credit Distribution UMKM Vs. GDP Growth

In an effort to increase the real sector, to alleviate poverty alleviation and to empower UMKM, the Government implemented an economic policy to reduce interest rate of People Business loan (KUR) into single digit. The micro rate was initially stable at 22% but later in 2015 fell to 12%. The government then reduced it even further to 9% in 2016.

XYZ Bank, among several others banks, focuses its business on UMKM segment. XYZ bank is the most prominent bank for micro credit lending. Thus, the effect of interest rate changes will have an impact for XYZ bank; both in the amount of distribution and the number of micro credit borrowers. By looking at the importance of micro credit lending rate interest, the authors are interested in choosing the title "Effect of the government policy in reducing the interest rate of micro loan (KUR) on migration of Non KUR Loan

2. Research Questions

The problem commonly faced in the process of developing UMKM is an access to business capital, in particular loan from banks. Many of UMKM businesses have difficulty in obtaining bank financing. Complex processes and collateral issues are common reasons why many small businesses often unsuccessful in obtaining commercial bank loan. Considering these reasons, the government of Indonesia launched the People Business Loan Program (KUR) in order to bridge the interests between banking industry on one side and micro businesses on the other side, especially for micro businesses that are feasible from a business point of view but are not bankable. Based on data of the realization of KUR (Figure 2), Micro loan distribution during the period 2011-2016 exceeded the target set by the government.

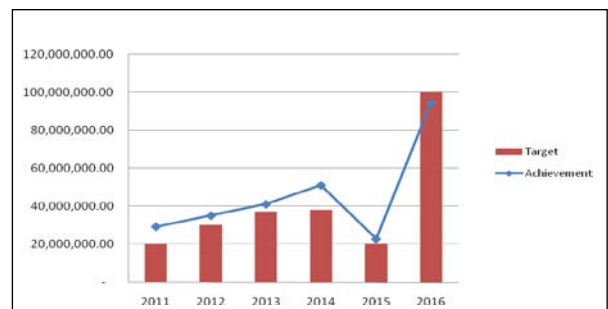


Figure 2 Target Vs. Micro Credit KUR Achievement.

The policy of the government as mentioned earlier is expected to have an effect of the distribution of KUR Micro loan. Based

on the explanation of existing problems, the research questions are twofold:

- a. What is the development of migration of KUR Micro loan and Non KUR migration on all Bank XYZ regional offices over the past 3 years?
- b. How large is the effect of, KUR Micro loan rate and Government policy on the development of Non KUR migration, on outstanding amount and the number of borrowers?

3. Research Objectives

Based on the background and research questions that have been formulated above, the purposes of this research are as follows:

- a. To analyze the development of migration of KUR Micro loan and Non KUR migration in all XYZ bank regional offices during the last 3 years
- b. To analyze the effect of KUR Micro loan interest rate and Government policy on the development of Non KUR migration seen from the outstanding amount and the number of borrowers.

4. Research Benefits

The results of this study are expected to provide benefits, for both researchers and practitioners as follows:

a. Researchers:

- 1 The results of this study are expected to broaden the reader's knowledge about the effect of KUR Micro loan rate on the development of Non KUR migration at XYZ bank
- 2 The results of this study can be used as a reference for further research.

b. Practitioners:

- 1 For investors, creditors, market analysis or other stakeholders, the results of this study can be used as one of the parameters to evaluate the performance of a bank
- 2 For Bank Indonesia or the relevant ministry as regulator in determining monetary policy or other policies related to KUR Micro loan rate.

II. LITERATURE REVIEW

According to Sukirno (2005), demand is the amount of goods demanded on a particular market with a certain price level at a certain level of income and in certain periods supported by purchasing power. The demand of a person or a society of a product in the market is determined by many factors. According to Manurung and Pratama (2004), there are several factors that can affect the demand of a good, namely:

1. Price of the good itself

If prices of goods become cheaper, then consumer demand for goods will increase. On the other hand, if prices of goods become more expensive, then consumer demand will decline. KUR Micro loan rate is an approximation of the price of the good in this research.

2. Price of Other Related Items

Prices of other goods (substitution products) may also affect demand. The price of substitution product in this research is approximated by Non KUR loan interest rate.

3. Consumer tastes or habits

Consumer tastes or habits can also affect the demand for a good. Consumer tastes are influenced by changes in consumer income, environmental changes, and other factors. Proportional of Non KUR loan migration to KUR Micro loan consumer is a proxy of consumer tastes or habit.

A. People Business Loan (KUR)

People Business Loan (KUR) is a program that belongs to the poverty reduction and Micro Small Business Empowerment Program Group. KUR can be a credit scheme or working capital financing with maximum repayment terms up to 3 years (working capital loan) or up to 5 years (investment loan). The minimum amount that can be borrowed is 5 million while the maximum loan amount is up to 25 million IDR.

The objective of the KUR program is to accelerate the development of economic activities in the real sector; more specifically in the context of poverty alleviation as well as the expansion of employment opportunities. In more detail, the objectives of the KUR program are as follows:

- a) Accelerate the development of the Real Sector
- b) Improve access to financing for UMKM & Cooperatives
- c) As an effort to overcome / alleviate poverty

When the first time it launched, KUR Micro loan rate was 22% and then lowered to 12% effective in 2015. Year after (in 2016), the KUR Micro loan rate was reduced even further to 9% effective, based on regulation of the ministry of economic coordination number (Permenko) number 13, 2015.

B. Non KUR Loan

Non KUR loan of XYZ bank is a general, individual, selective, and fair-interest credit that aims to develop / improve viability of microenterprises with relatively easy and simple procedures. Non KUR loan is denominated in rupiah and is the credit scheme that provides the highest spread for XYZ bank. Non KUR loan is the first commercial credit scheme where the source of funding comes from deposits received by each of XYZ Bank's branches without subsidies from other parties.

The Maximum amount of Non KUR loan is IDR 200 million. The sources of loan repayment are the cash flow of the business and / or the borrower's fixed income. Non KUR loan consists of: Working Capital Loan, Investment Loan, and Consumer loan. The interest rate is determined by flat rate system calculation. Target of Non KUR loan are entrepreneurs and consumer with permanent income.

The Non KUR loan provides many benefits and anyone who meets the criteria can apply for the loan. Interest rate given by XYZ bank from 2014 to 2017 has been constant at 22% effective. This rate is inversely proportional to the BI rate in which BI rate has been steadily decreasing from 7.5% to 6.5% from 2014 to 2017. Thus, it implies that the risk of the Non KUR rate has increased during those period if its rate compared to the BI Rate.

C. Proportional Migration from Non KUR loan to KUR Micro loan

Consumer behavior is a process through which a person / organization searches, buys, uses, evaluates and disposes of products or services after being consumed to meet its needs.

In relation to that, and in the context of loan, it can be deduced that an increase in number of borrowers who applied for the KUR Micro loan would caused an increase in migration from Non KUR loan to KUR Micro loan. Therefore, a proportional analysis of Non KUR migration to micro credit is required. In contrast, the less migration from Non KUR loan to KUR Micro loan, the demand for Kur Micro loan will fall, which indicates that the proportional factor will affect the outstanding amount and credit debt of KUR Micro loan. To manage potential problems that might occurred, good credit management is required.

D. Interest Rate & Loanable Fund Theory

The theory of loanable funds is commonly used to explain changes in interest rates (Madura, 2001). In loanable funds theory, the interest rate is determined by the amount of supply and demand for loan. Similar to goods and services, the loanable funds market works through supply and demand mechanisms in the money market. Interest rates are the price indicators of loanable funds.

A bank is an intermediary institution that collects funds from communities and channels them it to communities in the form of credit. Bank products in the form of collecting funds and lending, often termed as loanable funds. For supply of loanable funds, the products offered by banks are deposit products, such as: demand deposits, savings deposits, and time deposits. While on loanable funds demand, the product offered by banking is credit.

The theory of loanable funds explains why interest rates rise or fall. The focus of this theory is on supply and demand for loanable funds. The supply curve for loanable funds (Sf) has a positive slope, whereas the demand curve for loanable funds (Df) has a negative slope. The intersection between Df and Sf determines the interest rate on the equilibrium condition for the amount of funds lent. The Sf and Df curves are not constant but change due to changes in the factors that influence them.

Hypothesis.

The hypotheses that we developed are as follows:

- H1: An increase of KUR Micro interest rate negatively affects migration from Non KUR loan to KUR Micro loan
- H2: An increase of Non KUR interest rate positively influences migration from Non KUR to KUR Micro loan
- H3: An increase Proportional of KUR migration positively affects migration from Non KUR to KUR Micro loan
- H4: No Government policy negatively affects migration from Non KUR loan to KUR Micro loan

III. RESEARCH METHODS

A. Types, Data Sources and Research Models

Data used in this research is secondary data from 2014 until

2017 from source (BPS, Bank Indonesia and internal XYZ bank).

The model for this study is as follows:

Model 1 : Outstanding Migration of KUR Micro loan

$$Y1_{it} = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e_1,$$

Model 2 : Migration Borrower KUR Micro loan

$$Y2_{it} = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e_2,$$

Wherein :

- Y1_{it} Model 1 = Non KUR outstanding migration to KUR Micro loan
- Y2_{it} Model 2 = Non KUR borrowers migration to KUR Micro loan
- a = constants
- b₁ sd. b₄ = Expected parameters
- X₁ = Interest Rate KUR Micro loan
- X₂ = Non KUR loan Interest Rate
- X₃ = Proportional migration of KUR Micro loan to total migration
- X₄ = Dummy
- e₁ dan e₂ = Standard error

B. Time and Location Research

The study was conducted for 5 months, from March to August 2017 at the headquarters of XYZ Bank.

C. Processing and data analysis

We processed data using SPSS program. Regression test and panel data regression analysis were carried out using Eviews software. The effect of KUR Micro loan interest rate, Non KUR loan interest rate and proportional migration of KUR Micro loan to total migration were analyzed using panel data regression method.

D. Stages of Panel Data Regression

1. Estimation Model Determination
In order to obtain the best estimation model, we compared three different models that are Common Effect Model or Pooled least Square (PLS), Fixed Effect Model (FE), Random Effect Model (RE)
2. Determination of Estimation Method
To select for the best model, it is necessary to test the assumption of presence or absence of correlation between regressor and individual effects, then other tests including Chow test, Hausman test and langrange test Multiplier
3. Testing Assumptions and Conformity Model
The data that are used in the regression model must be tested first to check for any possibility of deviation of classical assumptions including the Normality Test, Multicollinearity Test, Autocorrelation Test and Heteroskedasticity Test
4. Interpretation
We interpret the results of each regression model based on the signs of the coefficients.

IV. RESULTS AND DISCUSSION

A. Development of Non KUR Loan Migration and KUR Micro Loan at All Offices of XYZ Bank

XYZ bank is a leading commercial bank and one of the state owned banks which prioritizes its services to micro, small and medium enterprises and have mission to support the improvement of communities' economies. In the micro business segment, XYZ bank is a market leader in the industry and it has branches in all areas of Indonesia; including remote cities and villages.

Micro Credit is a credit channeled through XYZ bank with credit schemes that include Non KUR loan and KUR Micro loan. Non KUR loan is the main source of profit for XYZ Bank. Every year, Non KUR loan grows steadily, partly due to the continuous improvement of XYZ Bank services, the development of economic activities in villages and small towns, as well as the loyalty of small entrepreneurs to banks.

With changes of interest rate policy, the borrowers will switch to credit schemes that offer lower interest rate. This will lead a migration from Non KUR loan to KUR Micro loan, both in terms of outstanding and number of borrowers. For instance, during the last three months, there have been migration from Non KUR loan to KUR Micro loan as indicated by Tabel 1:

Table 1 Debit Migration and Outstanding Migration

No	Area	Average Borrower Migration	Average Outstanding Migration
1	Aceh	645	13.506.650,000
2	Bandung	5.435	119.584.225,000
3	Banjarmasin	1.446	33.777.225,000
4	Denpasar	1.934	42.035.625,000
5	DKI Jkt 1	372	8.850.500,000
6	DKI Jkt 2	1.466	35.851.750,000
7	DKI Jkt 3	992	22.678.653.275
8	Jayapura	282	8.218.250.000
9	Lampung	1.683	40.980.125.000
10	Makassar	3.256	80.923.834.979
11	Malang	4.764	89.876.387.500
12	Manado	1.072	23.312.555.000
13	Medan	1.606	35.178.945.000
14	Padang	1.458	33.569.275.000
15	Palembang	2.516	58.039.347.591
16	Pekanbaru	598	13.787.250.000
17	Semarang	3.824	75.881.798.500
18	Surabaya	2.284	44.956.825.000
19	Yogyakarta	5.015	101.317.574.250

Based on Table 1, the region that has the least outstanding migration is Jayapura while the region with the largest outstanding migration is Bandung. From the perspective of number of borrowers, the smallest and largest areas are Jayapura and Bandung respectively.

B. Analysis of the Effect of Interest Rate of KUR Micro Loan on the Development from Non KUR Loan Migration to KUR Micro Loan Viewed from Outstanding Number and Number of Borrowers

1. Outstanding Migration of KUR Micro Loan

Based on the results of Chow-F test and Hausman test, we chosed Fixed Effect model. The result of Fixed Effect model is presented in the table 2.

Table 2 Fixed Effect Model

Variable	Coefficien			
	t	Std. Error	t-Statistic	Prob.
C	35.92217	1.788757	20.0822	0.0000
X ₁	-17.2582	1.402195	-12.30799	0.0000**
X ₂	-77.41418	10.46484	-7.397551	0.0000**
X ₃	3.45488	0.197516	17.4916	0.0000**
Dummy	-21.0453	0.065409	-321.7516	0.0000**

Effects Specification			
Cross-section fixed (dummy variables)			
Weighted Statistics			
R-squared	0.998775	Mean dependent var	22.34442
Adjusted R-squared	0.998655	S.D. dependent var	12.30198
S.E. of regression	0.373722	Sum squared resid	31.14597
F-statistic	8267.231	Durbin-Watson stat	1.603985
Prob(F-statistic)	0.0000		

Unweighted Statistics			
R-squared	0.998293	Mean dependent var	19.82124
Sum squared resid	31.25198	Durbin-Watson stat	1.580696

Description: **) significant at 5% level; *) is significant at the level of 10%

The classical assumption test is performed before doing data processing on the regression model to get the equation / model which is Best Linear Unbiased Estimator (BLUE).

1. Normality Test Analysis, with probability value of 0.4212 that is greater than alpha of 0.05 indicates that the error terms follow normal distribution assumption.
2. Multicollinearity Test Analysis. We can concluded that there is no multicollinearity problem in this research. This is based on evidence that the all correlation coefficients between variables are below 0.8 (Gujarati, 2006).
3. Autocorrelation Test Analysis. Durbin Watson value equals 1.60 value is within the range of no autocorrelation criteria. Thus, there is no correlation between error terms.
4. Heteroscedasticity Test Analysis. Because the value of Residual Sum Squared after weighted of 31.14597 is less than the value before weighting (31.20729), it can be concluded that there is no problem of heteroscedasticity.

Based on table 2 above, R-square equals 0.998 which means 99.8% of the proportion of diversity of outstanding migration

variables can be explained by the three independent variables (interest rate of KUR Micro loan, Non KUR loan interest rate and Proportion of migration KUR Micro loan). The rests of 0.2% are explained by other variables outside the model. The final equation of the model is as follows:

$$Y_{\text{outstanding}} = 35.92217 - 17.25820 X_1 - 77.41418 X_2 + 3.454880 X_3 - 21.04530 X_4$$

2. Migration of borrower KUR Micro loan

Based on the results of Chow-F test and Hausman test, Fixed Effect model was chosen. The result of Fixed Effect model is presented in the table 3.

Table 3 Fixed Effect Model

Variable	Coefficien t	Std. Error	t-Statistic	Prob.
C	10.85388	1.689483	6.424381	0.0000
X ₁	-10.40948	1.329609	-7.828978	0.0000**
X ₂	-27.75961	9.871997	-2.811955	0.0054**
X ₃	3.563077	0.187184	19.03514	0.0000**
Dummy	-4.613011	0.060945	-75.69091	0.0000**

Effects Specification				
Cross-section fixed (dummy variables)				
Weighted Statistics				
R-squared	0.989829	Mean dependent var		6.775008
Adjusted R-squared	0.988826	S.D. dependent var		4.310508
S.E. of regression	0.375722	Sum squared resid		31.48018
F-statistic	986.4741	Durbin-Watson stat		1.481653
Prob(F-statistic)	0.0000			

Unweighted Statistics				
R-squared	0.984271	Mean dependent var		5.703744
Sum squared resid	31.61189	Durbin-Watson stat		1.47454

Description: **) significant at 5% level; *) is significant at the level of 10%

The classical assumption test is performed before doing data processing on the regression model to get the equation / model which is Best Linear Unbiased Estimator (BLUE).

1. Normality Test Analysis, with probability value of 0.8470 that is greater than alpha of 0.05 indicates that the error terms follow normal distribution assumption.
2. Multicollinearity Test Analysis. Because all correlation coefficients between variables are below 0.8, it can be concluded that there is no multicollinearity (Gujarati, 2006).
3. Autocorrelation Test Analysis. The value of Durbin Watson is equal to 1.48 and is not within the range of no autocorrelation therefore the hypothesis of no-autocorrelation can not be accepted.
4. Heteroscedasticity Test Analysis. Because the value of Residual Sum Squared after weighted of 31.48018 is less than the value before weighted (31.48018), it can be concluded that there is no problem of heteroscedasticity.

Based on table 3 above, R-squared equals 0.989 which means 98.9% of the proportion of diversity of outstanding migration variables can be explained by the independent variable of interest

rates KUR Micro loan, Non KUR loan interest rate and Proportion of migration KUR Micro loan. The rest of 1.02% are explained by other variables outside the model. The final equation of the model panel data is as follows:

$$Y_{\text{borrower}} = 10.85388 - 10.40948 X_1 - 27.75961 X_2 + 3.563077 X_3 - 4.613011 X_4$$

The Effect of KUR Micro Loan Interest Rate on Outstanding and Borrower Migration at XYZ Bank

The microcredit interest rate affected significantly both on the outstanding migration and on the migration of borrower. The coefficient value of -17.3 means that if interest rate of KUR Micro loan increases by 1 percent, it will reduce the outstanding migration by 17.3 percent whereby the coefficient value equals -10.4 implies that an increase of interest by 1 percent will cause a fall in borrower migration by 10.4 percent. These results are consistent with the hypotheses that are developed and in line with the theory of loanable funds which states that the higher loan interest rate, will result in the decreasing demand for loanable funds or fall in credit migration. When applying for a KUR Micro loan, prospective customers will consider the interest rate of the KUR Micro loan set by the bank. This is related to the ability of prospective borrowers in paying the price to be issued on loan from the bank. Generally, prospective borrowers are more interested if the bank offer low interest rates. So here, the interest rate of credit has an influence in migration of KUR Micro loan by banks.

Influence of Non Kur Interest Rate to Outstanding and Borrower Migration at XYZ Bank

The effect of Non KUR interest rate on the outstanding migration and on the migration of borrowers differ from the hypotheses. The sign of each coefficient is negative which implies that an increase in non KUR Micro loan rate will lead to a decrease in the number of outstanding migrations. This can be explained as follows. Comparing the migration from Non KUR loan to KUR Micro loan with KUR Micro loan Distributions (as shown in Figure 4) that has an inverse relation, we can interpret that any increase in outstanding of KUR Micro loan and number of borrowers of KUR Micro loan are not affected by the migration but by the willingness of the borrowers.

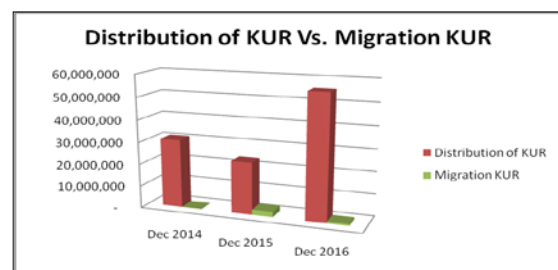


Figure 4 Distribution of KUR Vs. Migration KUR

Some of the factors that affect the decrease of migration from

Non Kur loan to KUR Micro loan are as follows:

- a) Non Kur loan products are credit granting services with the plafond is up to 200 million IDR, whereas the maximum amount that can be borrowed for microcredit loan is only 25 IDR. Therefore, if there is an increase in Non KUR interest rate, it relatively will not lead to an increase in outstanding migration.
- b) Because of certain requirements that must be fulfilled to be eligible as KUR's borrowers, hence an increase of non KUR interest rate will not cause an increase in outstanding migration.

The Proportional Influence of Migration to Outstanding and Borrower Migration at XYZ Bank

Increased proportion of Non KUR has a positive effect both on the outstanding migration and the migration of borrowers. These findings are consistent with the hypothesis which implies that increasing number of borrowers who know the movement of products due to the change of taste will trigger the migration of outstanding and borrowers.

Dummy's Influence on Outstanding and Borrower Migration at XYZ Bank

The average of outstanding migration and borrowers will be smaller by 21,04530 and 4.613011 times when the government implemented policy of no KUR lending; during the period where the interest rate of KUR had been reviewed. This suggests that intervention by the Government affects the migration of borrowers.

Managerial Implications

Based on the results of the research, it can be formulated the following managerial implications:

1. XYZ Bank Management

- 1.1. The bank has to anticipate a decline in interest rates for KUR Micro loan in order to avoid large migration of outstanding and customer of Non KUR Micro loan. Some strategies that might be implemented are as follows:
 - a) The banks shall maintenance and improve its services in order to preserve and enhance the willingness to pay of borrowers.
 - b) The banks should provide some benefits for Non KUR loan products so that the borrowers are more comfortable with Non KUR loan credit and at the same time improve its marketing strategy.
- 1.2. As migration is not affected by an increase in KUR interest rates, other factors outside the interest rate should be a priority for management in maintaining the retention and acquisition level of Non KUR loan borrowers. As for some things that need to be done in improving customer retention and acquisition either existing program or new program is as follows:

- a) Increase incentives for borrowers if interest payments are paid timely.
 - b) Creating coaching services business clinic for the borrower if the borrower is experiencing problems in paying off the loan.
- 1.3. The proportionate increase in migration significantly affects the outstanding migration and the number of borrowers so banks need to create innovative products that can maintain the consistency of Non KUR borrowers.
2. Government
 - 2.1. Government policy related to the decrease of interest rate of micro lending then the Government should also make policy about decreasing of funding interest rate, so that bank NIM's quality can be well maintained.

IV. CONCLUSIONS AND RECOMMENDATIONS

1. Conclusions

The conclusions that can be drawn from the results of research and discussion are as follows:

- a. The Regional office which has the highest numbers of migration outstanding and borrower is Jayapura, whereas Bandung has the lowest numbers of migration outstanding and borrower.
- b. Based on the results of the two panel data regression models, it can be inferred that loan outstanding migration and borrower migration from Non KUR loan to KUR Loan are influenced significantly by KUR loan rate, Non KUR loan rate, proportional migration. The effects of both Non KUR loan rate and proportional migration to loan migration are positive whereby the KUR loan rate has a positive effect on loan migration.

2. Recommendations

Based on the conclusions of the above research, suggestions that can be given are as follows:

- a. XYZ Bank needs to continuously innovate its Non KUR loan in order to reduce loan migration.
- b. In order to maintain net interest margin, Bank Indonesia's needs to develop a policy in reducing not only lending rates but also funding rates of banks.
- c. This research can be analyzed further by adding other variables such as level of bank competition and Non-bank financial institutions (Fintech).

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