

# EFFECT OF BANKING VARIABLES AND REMITTANCES ON FINANCIAL INCLUSION IN INDONESIA : FRACTIONAL REGRESSION METHOD

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## Abstract

Indonesias income per capita is relatively higher than another developing countries in ASEAN. Nevertheless, Indonesias financial inclusion is still lower than those countries. Therefore, this paper is aimed to discover the factors that are significantly associated with financial inclusion in Indonesia. This issue is related to several policies that have been applied by government in order to enhancing financial inclusion, for instance committing banking sector as the main engine in boosting financial inclusion, also pointing native workers who work in foreign countries as one of the maintarget in financial inclusion related policy. In this paper, financial inclusion is measured with an index which is more comprehensive than other measurement. However, this index is bounded in interval  $[0,1]$ . Linear regression modelling with limited dependent variable is likely to violate the conceptual assumption of the variable. This issue could be solved by fractional regression model, which able to predict fitted values in the interval  $[0,1]$ . Results show that state-owned banks share of asset and remittance has a positive association with financial inclusion significantly, while NPL has a negative association with financial inclusion significantly.

**Keywords:** *financial inclusion, NPL, fractional regression, share of banking asset*

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## 1. Introduction

Based on 2017 World Bank data, Indonesias income per capita is relatively higher than another developing countries in ASEAN. Nevertheless, Indonesias financial inclusion is still lower than those countries as indicated by the percentage of loan made to financial institutions or low credit card ownership in Indonesia. This phenomenon is not in accordance with the results of expert research, one of which is the research of Sarma and Pais (2011) which states that the higher the income of the community in a country is, the financial services in the country will be

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increasingly inclusive. This encourages research on factors that affect financial inclusion in Indonesia.

In addition, research on financial inclusion has undergone many developments over time. Financial inclusion initially was only measured by the percentage of residents account ownership in the financial institutions. However, these measurements are considered less comprehensive in providing an overview of a country's financial inclusion. Furthermore, Sarma (2012) found a composite index, that is Index of Financial Inclusion that is more comprehensive in measuring a country's financial inclusion than other measures. This index is built from several dimensions, including accessibility, availability, and usage. This index is a fractional variable which means that it has a value in the interval  $[0,1]$ . Modeling uses linear regression where the dependent variable is a limited dependent variable that has a range of values in the form of  $[0,1]$  that potentially causes the conditional expectation value of the dependent variable to be outside the interval. This does not fulfill the conceptual requirements of these variables (Ramalho et al, 2010). Various experts began to conduct examination in order to solve this problem. Papke and Wooldridge (1996) find a fractional regression model as a solution to modeling issues where the dependent variable has a range of values  $[0,1]$ .

Based on the description above, the research questions are arranged as follows.

1. What is the development of financial inclusion and the factors that influence it in Indonesia?
2. How do these factors affect financial inclusion in Indonesia?

## **2. Methodology**

### **2.1 Financial Inclusion**

Research on financial inclusion begins with the discovery of the term financial exclusion, defined as a condition that prevents poor people and other community groups from having the opportunity to gain access to financial services, and tends to be associated with geographical conditions and income levels (Leyson and Thrift, 1995). Sarma (2012) defines financial inclusion as a condition that ensures the easy access, availability, and usage of all formal financial services for all members in an economy. This view is motivated by the tendency of other researchers in measuring financial inclusion who only pay attention to the access dimension in the form of the proportion of adult population who have access to formal financial services, but ignore some other important aspects that support the financial inclusion system. The following is an explanation of each aspect or dimension of financial inclusion.

### 2.1.1 Access

The access dimension is a measure of banking penetration within a society. It means that financial inclusion is a condition where formal financial services have users as many as possible. The access dimension is often measured through the proportion of adult residents with banking accounts.

### 2.1.2 Availability

Availability dimension illustrates the convenient accessibility of banking services for the users. This dimension is related to the infrastructure of the banking system. Availability dimensions are often measured through the number of commercial bank branch offices per 1000 adult residents.

### 2.1.3 Usage

The usage dimension plays a role in anticipating the phenomenon found by Kempson et al (2004) where in a region there is a high number of banked people but the bank offers a low service use. The usage dimension is measured by the ratio of credit channeled by banks to GDP.

By using these three dimensions, a more comprehensive index is made in measuring financial inclusion rather than measuring dimensions separately. This index is called the Index of Financial Inclusion (IFI). IFI can be used to determine the development of a country's financial inclusion over time and to compare financial inclusion between regions at various levels of economic aggregation. IFI can be built from macro data and micro data and this process will adjust to the available data.

## 2.2 IFI Formation

Calculating the value of the index in the dimensions  $i$  and time  $t$ , can be measured in the following method.

$$d_{it} = w_i \frac{A_{it} - m_i}{M_i - m_i} \quad (1)$$

$d_i$  : Index for dimensions  $i$ , time  $t$

$w_i$  : weight for dimensions  $i$

$A_{it}$  : real value for dimension  $i$ , time  $t$

$m_i$  : minimum value for dimensions  $i$

$M_i$  : maximum value for dimensions  $i$

Weight ( $w_i$ ) shows the priority of the dimensions used to measure financial inclusion, in this study all dimensions are considered equally important so that

each dimension has a weight of 1. The minimum value for each dimension is 0, and the maximum value of each dimension is the largest indicator value for each dimension.

Calculations in formula (1) will produce a dimension index valued with  $0 \leq d_{it} \leq w_i$ , which means that the higher the value  $d_{it}$  the greater the financial inclusion of the dimensions  $d_i$  at time  $t$ . It indicates the condition of point  $O = (0, 0, 0)$  where the financial inclusion is very poor in the period used, while point  $W = (w_1, w_2, w_3)$  is the condition of achieving the best financial inclusion in the study period used, which means the greater distance between point  $X = (d_{1t}, d_{2t}, d_{3t})$  to point  $O$  indicates the more inclusive financial services at a time, and the smaller the distance between points  $X$  to point  $W$  indicates the more inclusive financial services at a time. Furthermore, Euclidean distance calculations are performed between point  $X$  to point  $O$  and  $W$ . This is done since in a multidimensional case, it is possible that 2 observations can have the similar distance to point  $W$ , but have a different distance to point  $O$ . Euclidean distance between the observation point to  $t$  to point  $O$  is called  $D_{1t}$ , while to  $t$  to point  $W$  called  $D_{2t}$ , after that IFIs can be calculated through Euclidean average distances  $D_{1t}$  and  $D_{2t}$ . The following is the calculation formula.

$$D_1 = \frac{\sqrt{d_1^2 + d_2^2 + d_3^2}}{\sqrt{w_1^2 + w_2^2 + w_3^2}} \quad (2)$$

$$D_2 = 1 - \frac{\sqrt{(w_1 - d_1)^2 + (w_2 - d_2)^2 + (w_3 - d_3)^2}}{\sqrt{w_1^2 + w_2^2 + w_3^2}} \quad (3)$$

$$IFI = \frac{1}{2}[D_1 + D_2] \quad (4)$$

Equation (2) will produce a normalized Euclidean distance value between observation and point, with the value between 0 and 1. The greater the value  $D_1$  is, the more inclusive financial services at a time. Equation (3) will produce an inverse value of the Euclidean distance normalized between observation and point  $W$ , with the value between 0 and 1. The greater the value  $D_2$  the more inclusive financial services at that time. Equation (4) will produce an IFI value at a time, with the value normalized between 0 and 1, where the closer the IFI value is to number 1 at a time, the more ideal financial inclusion a country has than at other times.

## 2.3 Banking Variables

Sarma and Pais (2011) view financial inclusion as a measure influenced by several factors, one of which is by banking variables. Such banking variable can be a soundness indicator, a pattern of ownership of banking assets, or a loan interest rate offered.

Soundness indicator serves as an indicator that describe the level of banking

health. One form of its forms is a non-performing loan (NPL) that shows the health level of a bank. The higher the NPL is, the worse the bank risk mitigation is. In relation to financial inclusion, Sousa (2015) considers that health banking can offer a wider and more diverse products. This shows that the lower NPL value has implications for the amount of financial services offered by banks.

The second indicator of the banking structure factor is the pattern of ownership of banking assets in a country. According to Detragiache et al (2006), in the middle to lower income countries the existence of foreign banks will have a negative impact on access to financial services. This is based on the tendency of foreign banks to apply the cream-skimming strategy, that is being committed to issuing products that only adjust the most favorably borrowers. In this case the borrower is a hard information borrower. Meanwhile, domestic banks are more reliable in monitoring soft information, such as information about entrepreneurial capabilities and honesty of prospective borrowers. Thus, the coverage of customers the state banks serve is wider than foreign banks. Therefore, the increase in the share asset of domestic bank from total banking assets in developing countries will lead to greater access to financial services.

Another form of banking variable is the loan interest rate offered by banks. The interest rate referred to is the real interest rate, meaning that the interest rate is free from the influence of inflation. Sousa (2015) found that loan interest rates had a negative impact on financial inclusion. The higher the loan interest rate pegged by banks, the lower the loan demanded by customers, particularly by the low-income customers. This is due to the limited ability of customers to make installments of credit bills later. As a consequence, these customers tend to reduce their demand for credit which means a reduction of the financial services provided by banks.

## **2.4 Remittance**

Remittance is a money transfer service carried out by senders from Indonesia to recipients abroad or vice versa (Financial Services Authority, 2018). In this study, the intended remittance was focused on inflow remittances or remittances entering Indonesia. World Bank (2005) states that remittances through bank accounts will encourage savings, this will be different if remittances are carried out through cash transactions. Furthermore, Anzoategui et al (2011) argue that remittances can affect financial inclusion. This is based on the following points.

1. Remittance increases demand for saving instruments
2. Remittances increase likelihood to receive loans

## **2.5 The Scope of Research**

This study views financial inclusion in a multidimensional manner. These dimensions include access to financial services, the availability of financial services in-

frastructure, and the use of financial services by the community. The explanatory variables used are NPL, banks share assets, loan interest rates, and remittances used by Indonesian Migrant Worker (TKI). The data used is Indonesian data quarterly. The data covers the first quarter of 2012 until the first quarter of 2018. With these conditions, the total observations were 25 pieces.

This study uses a secondary data obtained from various sources. The details of the data sources are presented in the following table.

**Table 1:** Data Source Details According to Variables

| Variable                      | Source                                                       |
|-------------------------------|--------------------------------------------------------------|
| (1)                           | (2)                                                          |
| Financial Inclusion Index     | Data Processing                                              |
| Non Performing Loan           | Indonesian Banking Statistics - Financial Services Authority |
| Share Assets of Persero Banks | Indonesian Banking Statistics - Financial Services Authority |
| Real Credit Interest Rate     | Indonesian Banking Statistics - Financial Services Authority |
| Incoming Remittance           | Indonesian Financial Economic Statistics - Bank Indonesia    |

1. **Financial inclusion index** is an index that describes how inclusive financial services are in a country. This variable has a value in the interval range  $[0,1]$ , where the higher value indicates the more inclusive financial services at a time, vica versa.
2. **Non Performing Loan** a proportion of the total bad credit towards loans channeled by state banks.
3. **Share Assets of Bank Persero** is the proportion of assets of state banks towards total banking assets in Indonesia.
4. **Real Credit Rate** is the nominal interest rates of loans channeled by conventional commercial banks to the primary sector minus inflation.
5. **Remittance** is the division of the amount of remittances from Indonesian Migrant Workers towards a total of them at a time. The variable unit is in the form of billions of rupiah per thousand lives.

The following table presents the proxy, the data source, the weight value, the minimum value, and the maximum value used from each dimension.

**Table 2:** Details of the IFI Formation Dimension

| Dimension | Data | Source | Quality | Min | Max |
|-----------|------|--------|---------|-----|-----|
| (1)       | (2)  | (3)    | (4)     | (5) | (6) |

|              |                                                              |           |   |   |       |
|--------------|--------------------------------------------------------------|-----------|---|---|-------|
| Access       | Number of Banking Deposits Account per 1.000 Adult Residents | SSKI-BI   | 1 | 0 | 3,374 |
| Availability | Number of Bank Service Offices per 100.000 Adult Residents   | SPI - OJK | 1 | 0 | 0,449 |
| Usage        | Amount of Loans channeled by Banking per ADHB GDP            | SPI - OJK | 1 | 0 | 1,406 |

In this study the analytical methods used were descriptive analysis and inferential analysis. Descriptive analysis is used to explain how the development of financial inclusion along with its influencing factors in the specified period, while inferential analysis is used to compare linear and fractional regression models, and to find the factors that influence financial inclusion through various predetermined statistical tests. The level of significance used is  $\alpha = 1\%$ .

## 2.6 Fractional Regression

Fractional regression is a regression model whose dependent variable is between 0 and 1, and the variable is generated through a natural process or in other words not through the censoring process. The estimation method used is Quasi-MLE. This model utilizes a nonlinear function that connects independent variables to the dependent variable.

$$E(y_t | x_t) = G(x_t \beta)$$

where  $G(\cdot)$  is a nonlinear function that is known and cannot satisfy.

$$0 \leq G(z) \leq 1, \text{ where } z \in R$$

In the nonlinear function research used is a loglog function that has been proven to be able to fulfill the above assumptions. In addition, the functional form used in modeling must be able to provide the exact model specifications. Based on Ramalho's research (2009), the loglog function was found to constantly provide the right specifications and high determinant coefficients. The accuracy test on these specifications uses the RESET test. Its principle is to test if there are influential nonlinear effects not captured by a model. The calculated statistic used is the Lagrange Multiplier valued with  $TR^2 < \lambda_{0,01(2)}^2$  and to be compared with  $X_{0,01(2)}^2$ . In addition, since the data used is a time series data, the non-autocorrelation test is also performed on the fractional regression model. The test is performed on unweighted residuals of the model, that is the difference between the dependent variable and fitted values. The test uses the serial correlation test developed by Kobayashi (1991) The test uses a calculated statistic of  $D = \sqrt{T}\rho$ , where  $\sqrt{T}\rho$  is the parameter size of the residual  $w_t w_{t-1}$  towards  $w_t w_{t-1}$ . The non-autocorrelation assumption is fulfilled when  $D \leq Z_{1-\alpha} - \frac{1}{\sqrt{T}}\rho$ , where

$Z_{1-\alpha}$  quantile  $1 - \alpha$  of a standard normal distribution. The test regarding the fractional regression model consists of the overall test and partial using the Wald test. Meanwhile, the measure of goodness of the fractional regression model also uses  $R^2$ . The following is presented in the context of fractional regression.

$$IFI_t = G(\gamma_0 + \gamma_1 NPL_t + \gamma_2 SHAREPERS_t + \gamma_3 INT_t + \gamma_4 REMIT_t$$

Description:

$$G(.) : e^{-e^{-(.)}}(\log\log)$$

In linear regression, the partial effect of each independent variable is the parameter. Whereas in fractional regimens, the partial effect is not constant towards observation, thereby the calculation of average partial effect is performed. The analysis is guided by the study of the theory referred to. Any model with partial effects and appropriate directions to the theoretical basis considered the better one.

### 3. Result and Discussion

#### 3.1 Descriptive Analysis

Based on the picture below, in 2012 there was an increase in IFI on a quarterly basis which was so large compared to other years. In that year, in the third quarter there was an increase in IFI by 0.15 points, or twice the previous quarter. This increase was driven by growth experienced by all dimensions of financial inclusion simultaneously. The biggest increase from IFIs occurred in the final quarter of 2017, which was 0.20 points. The increase in the quarter was the impact of growth on all dimensions of financial inclusion. However, this growth was dominated by the growth of bank deposits at 1,000 adult population of 24.52%; followed by growth in the ratio of bank loans to GDP by 4.62% and the number of bank service offices per 100,000 adult population increased by 0.47%.

In the first quarter of 2012 until the third quarter of 2013, the NPL of state-owned banks (persero) tended to decline. Meanwhile, in the following period these variables tended to increase. Figure 1 also shows a seasonal pattern of NPL, which is an increase at the beginning of the year due to the low trend of credit demand at the beginning of the year. At the beginning of the year, businessmen tend to be careful in borrowing loans, since the corporations are monitoring on how the existing economic policy will certainly have an impact on the level of consumption and investment in Indonesia. In addition, the corporation also needs to monitor macroeconomic conditions abroad, such as world commodity prices or policies implemented by the countries destination for export. The decline in credit demand at the beginning of the year mathematically increases the NPL value.

In general, the share assets of state-owned banks to total banking assets in Indonesia tends to increase. Such increase is a sign of the similar increase in the



financial service activities carried out by the banks. The increasing number of services provided encourages banks to improve their infrastructure, particularly in terms of quantity in order to ensure the convenience of the customers.

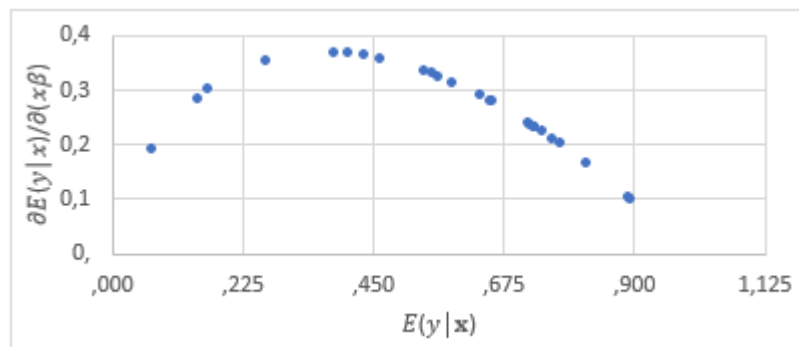
Incoming remittances are remittances from senders from abroad to recipients in Indonesia. Some studies concluded that remittance is one of the entry points of financial inclusion. Figure 1 shows that the number of incoming remittances per tens of Indonesian migrant workers tends to increase over time. In the first quarter of 2012, each migrant worker sent an average remittance of Rp. 424,000 per month. The amount increases to Rp. 552,700 per migrant worker. This increase is quite large compared to the other increase between quarters. In the first quarter of 2018, remittances per migrant worker experienced the most drastic increase of 18.25%.



Figure 1. Development of Each Variable

### 3.2 Inferential Analysis

Based on the results of stationarity testing, it was found that all variables show no stationarity at the order level, but at the first order. This condition is likely to produce a spurious regression, except the variable used indicates the cointegration. Further, a cointegration test is performed which shows that the residuals obtained from the regression equation at the order level have a value smaller than the test statistic. This indicates the cointegration of the variables used, so that the resulting regression will be meaningful. In the fractional regression model, two assumption tests were carried out. The first test is the model specification test conducted using the RESET test; the results are found that count statistics is  $TR^2 < X^2_{0,001(2)}$ , in other words the loglog function can provide the right specifications. The accuracy of these specifications also proved the fulfillment of conditions where the maximum partial effect in the model with the loglog function occurs when  $E(y|x) < 0,5$  as seen from the following picture.



**Figure 2.** Fitted Values and Partial Effect of an Observation

Furthermore, a non-autocorrelation test was performed using the serial correlation Kobayashi test. The results found that  $D \leq \xi_{1-\alpha} - \sqrt{T}\rho$ , which means that there is no serial correlation from the residual nonlinear model.

### 3.3 Model Parameter Estimation

Parameter estimation is done after it is ensured that all variables show stationarity and cointegration, as well as all the assumptions needed from the model used are fulfilled.

**Table 3:** Parameter Estimation of Fractional Regression Model

| Dependent Variable: IFI |                      |
|-------------------------|----------------------|
| Independent Variable    | loglog               |
| (1)                     | (2)                  |
| C                       | -12,0591*<br>(-5,07) |

|                        |                     |
|------------------------|---------------------|
| NPL                    | -1,1633*<br>(-4,49) |
| SHAREPERS              | 0,3141*<br>(5,42)   |
| INT                    | 0,1088<br>(1,16)    |
| REMIT                  | 0,5155*<br>(5,64)   |
| R <sup>2</sup>         | 92,43%              |
| Overall Test (P-value) | 0,0000*             |

\* : significance on  $\alpha = 1\%$

The feasibility test of the model is carried out by using the Wald test. The results is a proposed model better than the one that only consists of constants. This is indicated by the p-value which is smaller than the 1% significance level. That is, there is enough evidence to reject the null hypothesis which states that there are no significant parameters. This model produces an R<sup>2</sup> value of 0.9243; which means that the fractional regression model can explain 92.43% of the IFI variability, while the remaining 7.57% cannot be explained by the model. The partial testing is also done using the Wald test with a significance level of one percent. The results show that all independent variables significantly influence the financial inclusion index, except for credit interest rates. Meanwhile, the share assets of state-owned and remittances have a positive impact on financial inclusion, while NPL has a negative impact.

### 3.4 Result Interpretation

The partial effect produced by the fractional regression model is not constant for all observations like a linear regression model due to a nonlinear function that connects the independent variables and the dependent variable, so that the partial effect of the fractional regression model using the average partial effect approach. The APE of each independent variable used is presented as follows.

**Table 4:** Partial Effects in Fractional Regression Models

| Independent Variables | Partial Effect |
|-----------------------|----------------|
| (1)                   | (2)            |
| NPL                   | -0,3089        |
| SHAREPERS             | 0,0834         |
| INT                   | 0,0289         |
| REMIT                 | 0,1368         |

In this study, the banking variable has three approaches, including the state-owned bank NPL, share assets of state-owned banks, and credit interest rates on the primary sector. The results showed that banking NPL has a significant negative effect on financial inclusion. This is in line with the initial hypothesis of the study based on Sarma and Pais (2011) research. The study concluded that the greater the banking NPL of a country is, the lower access to financial services significantly provided in the country. This is due to the higher banking NPL indicating the number of troubled loans in a country, which causes banks to have difficulty in providing new loans or loans to other customers. Thus, banks tend to tighten the requirements for customers loan, which can narrow access to financial services for the community as a whole. In addition, in the study period, state banks were proven to constantly have capacity to control their credit quality so that the NPL gas constant value less than 5%. This caused the state banks to be given incentives in the form of easy LFR. The easy LFR means that the amount of credit can be offered by the state bank to the public, or in other words the opportunity for the community to obtain a greater amount of credit. The average increase in NPL of 1% will result in a decrease in IFI by 0.3089 points.

Another approach to the banking variable is the share assets of the state owned bank. The results showed the variable had a significant positive effect on financial inclusion. This is in accordance with the initial hypothesis based on the theoretical model of Detragiache et al (2006), where state owned banks tend to not apply the cream-skimming strategy like foreign banks in a developing country. This condition creates a bigger portion of the community who obtain financial services, which indicates a bigger overall access to financial services. Accordingly, the increase in assets of state-owned banks has implications for the increasing number of types of financial services that can be offered, thereby the variety of products offered will meet all peoples diverse financial service needs. This finding is also in line with the efforts to realize financial inclusion in Indonesia carried out by state banks. Persero (state owned) banks play a significant role in distrubuting the non-cash social assistance program, in order to encourage any disadvantaged community to have a financial account in the form of an e-money account. E-money accounts are seen to help reduce consumptive tendencies as well as the starting point of financial diaries (managing simple finances) of the social assistance recipient community. This is because e-money will reduce the use of cash as a means of payment from a transaction, which then educates the community of the bottom of the pyramid to learn to save their money previously made in cash (cash-based) into electronic money accounts (accounts -based). This is expected to increase the their capability and quality, which in the long run can help reduce poverty. In addition to its role in channeling non-cash social assistance, state banks also contribute to the realization of financial inclusion through other programs, such as the TabunganKu program, branchless banking, and other programs. Meanwhile, on average the by 1% increase in the share assets of state-owned bank from the total banking assets will have an impact on

the increase in IFI by 0.0834 points. The finding reveals that credit interest rates in the primary sector have no significant impact on financial inclusion in Indonesia. Thus, public demand for financial services such as credit in the primary sector is not affected by interest rates offered by banks. The gradual decrease in credit interest rate over time can increase the demand for credit from the primary sector community, vice versa. However, credit interest rates in the primary sector do not show any change leaning towards certain direction in the span of years used in the study. For example, since 2016, Bank Indonesia has lowered the BI-rate to 4%, in the hope that banks will reduce the lending rates they set. The BI policy is in line with government instructions in pushing banks to play a greater role in delivering loan to various types of businesses in order to increase the overall production. However, the lending rates in the primary sector determined by banks remain worth more than 10%, so there is a gap of around 5% between BI-rates and interest rates pegged by banks. The gap is considered too large for developing country levels according to many economists in Indonesia. This has caused an insignificant impact of the lending rates on the primary sector towards the level of financial inclusion in Indonesia. In addition, this was also due to the sluggish business conditions in the primary sector in several quarters of the study period. This is indicated by the primary sectors ITB which is valued less than 100 in several quarters. This phenomenon has indicated a non-conducive expansion of a company's production to the primary sector, where production expansion is an excuse for employers to submit credit requests to banks. As a result, a decline in lending rates at some time did not necessarily encourage primary sector employers to increase their credit demand. Based on the results of parameter estimation, remittances have a positive significant impact on financial inclusion. This is in accordance with the Anzoategui et al (2011) study which found a positive effect of remittances on ownership of community deposit accounts. Remittance is one of the government's main instruments in driving financial inclusion listed in the National Financial Inclusion Strategy. The main target of this instrument is the lower class migrant workers abroad. Meanwhile, on average, an increase in remittances per migrant worker of \$1 will have an impact on the IFI with the growth of 0.0014.

## 4. Conclusion

1. Financial inclusion in Indonesia has increased within the study period. Non performing loans movement from state owned banks is volatile. Share assets of state-owned banks to total banking assets tend to increase. Credit rates for the primary sector are very volatile and do not show a clear trend direction. The number of incoming remittances per tens of migrant workers tends to increase over time.
2. The results of the inferential analysis provide the following conclusions.

- (a) NPL had a significant impact on IFI. Meanwhile, the share assets of state-owned bank and remittances significantly have a positive impact on IFI.
- (b) Credit interest rate has no significant impact on the IFI.

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