

THE EFFECT OF NON-CASH TRANSACTIONS ON COMMERCIAL BANK CREDIT CHANNELING AND ITS IMPLICATIONS ON ECONOMIC GROWTH

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ABSTRACT

This study is based on the start of the evolution of payment system that is driven by technology development, which can be seen in recent change of the use of cash transaction to be non-cash transaction in Indonesia. The purpose of this paper is to test the impact non-cash transaction on credit channeling and how it stimulates the economy. This study represents the transaction number of credit card, debit card, e-money, clearing, and Real Time Gross Settlement. By using multiple linear regression, the impact of these representatives on commercial bank lending are tested. The result confirms that only credit card, debit card, and Real Time Gross Settlement affect the credit channeled. However, all transactions affect altogether on credit channeling. Previous studies examine the direct source of fund for banks, which will be released in the form of lending for the society, but ignores the payment system evolution that changes the source's behavior. This paper contributes to the literature by examining and representing the impact of technology development on payment system, society's behavior, government's response, and shows their effects on bank's intermediary function in the form of credit, which further stimulates the economy.

Keywords: credit channeling, non-cas transaction, money multipiler, payment system evolution.

A. BACKGROUND OF THE STUDY

Bank in relation to its intermediary function is faced with two operational tasks, namely the task of collecting funds from the public and the task of allocating said funds in every aspect of financial instrument that can provide benefits for the bank. According to Siamat (2005) the main source of bank funds that comes from the society. Therefore, morally, they should be channeled back to the community in the form of credit. According to Lady (2008) credit is one of the largest financing compared to the entire economic activity.

On the other hand, the economy of a country is driven partly by the real sector and services sector, which are needed to develop an injection of funds for investment and working capital. There are several ways to get funds and one of the most common ways is through a bank loan. Similar to other developing countries, the source of financing business in Indonesia is still dominated by bank lending which is expected to prompt economic growth. (Ditria, 2008).

Although lending plays an important role for the economic growth of a country, the loans extended by the banking system is not optimal. It can be seen from the Loan to Deposit Ratio (LDR). The higher the LDR shows the greater DPK used for lending, which means that banks have been able to function the intermediary role properly. However, the LDR for commercial banks in 2008 - 2014 ranges from 74.58% - 90, 61% (it can be seen in table 1.1) and the figures are still below the expectations of Bank Indonesia (BI). Under the provisions of Bank Indonesia, the LDR should be around 85% - 110% (Sari, 2013). Table 1.1. can be seen to perceive the development of LDR in Indonesia.

Table 1. Overview of Commercial Bank LDR Period 2008-2015 (Position December)

Period	Credit Channeling (in Billion Rupiah)	DPK (in Billion Rupiah)	LDR (in %)
2008	1.307.688	1.753.292	74,58
2009	1.437.930	1.973.042	72,88
2010	1.765.845	2.274.489	75,21
2011	2.200.094	2.688.364	78,77
2012	2.725.674	3.225.198	83,58
2013	3.319.842	3.663.968	90,61
2014	3.706.501	4.114.420	90,01

Source: bi.go.id, 2015, data processed.

In his book *Dasar-Dasar Perbankan*, Kasmir (2011) described that to sustain the activities of banks as vendors of money (to lend), the bank must first obtains money (raise funds) so that from the difference between interests, the bank gains funds. The greater the amount of capital held by banks, the more flexible the bank in giving lending. Bank capital sources can be obtained from its own capital or loan capital from the public or other financial institutions.

On the other hand, with the development of information technology, the economy and the banking sector are growing along the way. Currently the development of non-cash payment instruments is running very fast, and lately this has brought an enormous impact on the parties involved in the payment system. Along with the development of non-cash payment instruments, a rise in transactions and economic activities also increased. It also stimulates a growth in the economic activity and cause bigger needs from the society for non-cash payment instruments. (Abidin, 2015).

With variety of reasons for the importance of lending activity for banks and the real sector, and accompanied by the development of technology especially in non-cash transactions through banks, it should be questioned whether the system of non-cash is affecting the credit channeling of the bank itself, and furthermore, whether the credit channeling has a positive impact on economy. There have been many studies that examine the factors affecting the credit channeling, among others is Mukhlis (2010), stated that the Non-Performing Loan (NPL) is affecting the credit channeling. On the other hand, Umam (2016) found DPK as the most significant contributors to the amount of lending. Sari (2013) also tried to find the results of the same study, with additional factors, namely NPL, and BI Rate which also affect lending. Pratama (2010) also found that DPK has a positive effect on credit, but with a note that the NPL and CAR have a negative influence.

Unfortunately, there are not many research that takes into account of the external factors for banks in terms of technological development with change of time, where it is more specifically indicated by the activities of non-cash transactions. In addition, the previous authors have not noticed the appearance of a variety of government programs that encourage non-cash transactions, as well as Central Bank's efforts in recent years to implement various forms non-cash transactions, where both of these have an enormous influence in economic activities in the society.

With the research gap above, the research is conducted to verify the theory and to add the reference for further research, where this is titled "The Effect of Non-Cash Transactions on Commercial Bank Credit Channeling and Its Implications on Economic Growth". Therefore, the problem of study are how the non-cash transactions affect the credit channeling of commercial banks and how bank lending affects economic developments from January 2009 to September 2016, with the research objectives to determine the effect of non-cash transactions on the credit channeling of commercial banks from January 2009 to September 2016 and to determine the influence of bank lending to economic developments from January 2009 to September 2016.

B. THEORETICAL FRAMEWORK

Bank Funds Management and its Relation to Credit

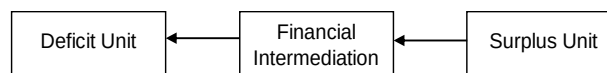
Bank in its operations has the main function as a collector of funds from the public and subscriber of funds to the community. According to Ismail (2010), management of bank fund is a process of managing public funds into bank and the organizing these funds for the benefit of bank

and the public in general, as well as mobilizing all available resources in order to achieve the adequate level of profitability, which is in accordance with the limits of regulatory requirements. Sources of bank funds that are used as a tool to conduct business activities can be classified into three, namely the sources from their bank's own funds, loans, and third parties. After getting into account, the funds are issued for various purposes, including lending. According to Undang-Undang Pokok Perbankan No. 14 tahun 1967 bab 1 pasal 1, 2 "Credit is the provision of money or equal with that, which is based on the agreement between bank as a lender to a borrower who is obliged to repay the debts after a certain period of time with the amount of interest that has been agreed on". According to Leon (2007), there are several types of loans disbursed by bank, which are working capital loans, which are loans used to finance the working capital; and investment credit, which are loans given to customers for the financing of capital goods, financing expansion of factories and offices, and others that are mid-term or long-term. Both affect the economic growth from the increase of productivity. While consumption credit, which are loans given to customers that are used for the purpose of consumption such as for the purchase of cars, houses, electronic goods, and others, affect the aggregated demand.

Role of Bank as a Financial Institution on the Economic Growth

Economic growth is defined as growth in economic activity that led to the goods and services produced within the community to grow, as well as increase the prosperity of society (Sukirno, 2000). Bank can play a bridging (intermediary function) between the parties that undergo surplus funds and those who need funds. This function is an important role in bank as the financier to borrowers with productive investment opportunities. This financial activity is very important in supporting the economic and financial system to run smoothly and efficiently (Mishkin, 2004). The financial institution can encourage people to increase activity in the financial sector through the actions in store funds and actions in borrowed funds. Graphic depiction of intermediation can be seen as follows.

Figure 1. Intermediation Function



Source: Mukhlis, 2015.

Through loans, bank can boost economic growth through the real sector and services. More specifically, bank loans in the form of working capital loans and investment loans provide a great positive impact to productivity.

Further theory on how the change in the means of transaction affect economic growth can be seen through the IS and LM model. According to Mankiw (2000), IS and LM curves can be described in mathematical models as follows:

$$\text{IS: } Y = C(Y-T) + I(r) + G$$

$$\text{LM: } M/P = L(r, Y)$$

The model shows that fiscal policy, G and T , monetary policy M , and prices as exogenous. Therefore it shows only the IS curve shows the combinations of r and Y , where this is in accordance with the equation in the goods market. In addition, the LM curve simply shows the combinations of r and Y that corresponds to the equation on the money market. LM curve illustrates the balance of real money supply. The decrease in the balance of real money supply will make the LM curve moves upward, the increase in real money balance will make the LM curve moves down. Conflicts between the external and internal balance requires a fiscal policy that is effective and has minimal negative impact. Historically, developing countries rely on the expansion of fiscal policy to achieve an economic growth. Thus, this shows that the change from cash to non-cash also rely on fiscal policy to achieve its effect on economic growth.

Non-Cash Transactions as the Influencer of Credit Channeling

Total domestic credit of monetary authorities and foreign reserve position determine the amount of the stock of base money/ stock in the money supply, which is a multiplication of the money multiplier coefficients of the stock of base money, is included below:

$$M^s = k.RM$$

where M^s is the stock of money supply; k is the coefficient of the money multiplier; RM is the stock of base money.

People's behavior in withholding money is determined by various factors. The first, is determined by income levels. The second factor is the interest rate. The third factor is the level of prices. The fourth factor that determines the community's decision to withhold the money is the progress of the payment system. The use of credit cards are increasingly popular these days, not just to show the economic status of a person. Credit card holders can reduce the need for money, either to take advantage of high interest rates, to protect themselves from inflation, or to avoid possibility of theft (Anwar, 1988)

According to the official website of Bank Indonesia, non-cash transactions are classified into four major categories, namely:

1. Means of Payment with Card or *Alat Pembayaran Menggunakan Kartu* (APMK)

Payment transactions using APMK instruments at this time is account based, so the settlement of transactions carried out at the level of bank with the method is chosen by each bank as the organizers in accordance with the scale of network operations.

2. Electronic money

Bank for International Settlements (BIS, 1996) defines e-money as the product of stored-value or prepaid card in which the amount of monetary value is stored electronically on an electronic apparatus.

3. Clearing

Pasal 16 UU Bank Indonesia states that Bank Indonesia is authorized to regulate inter-bank clearing system both in rupiah or foreign currency. The clearing is expected to increase the use of demand deposit payment instrument and encourage people to save money in bank.

4. Real Time Gross Settlement (RTGS)

For the society, this system provides a means to transfer funds online and in real time, while for bank, in addition to providing services to customers, it can also monitor the movement of the liquidity account clearing accounts in Bank Indonesia thoroughly and comprehensively, so as to optimize the use of banking funds in Bank Indonesia.

Previous Researches

The first category of previous research is researches focusing lending procedures, where researchers discuss about the factors that affect bank lending. There are some studies on this subject, namely researches conducted by Mukhlis (2011), Pratama (2010), Sari (2013) as well as Umam (2016). The researches conclude that third part fund or Dana Pihak Ketiga (DPK) has an influence on credit channeling.

The second category of research is focused on economic growth, with the emphasis on the economic effects on the financial sector. It is conducted by Inggrid (2006) with the conclusion that there is an equilibrium relationship between the development of the financial sector and real output, where real output and the volume of credit affect one another.

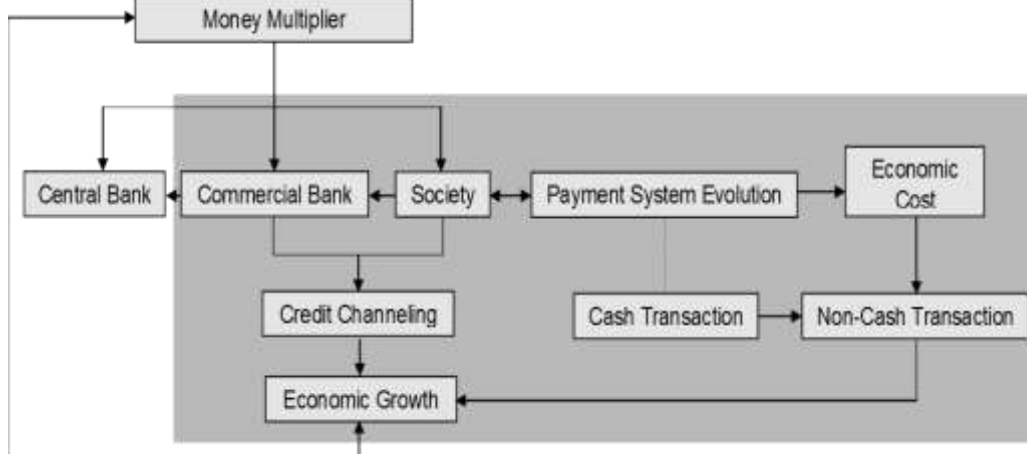
The third category research is centered on the effects of non-cash transactions on finance and the economy made. The research are by Medyawati (2010), Nirmala (2011), Onay (2008), Shamim (2007), as well as Syarifuddin (2009). This study draws the conclusion that the increase in non-cash payments affect the economy.

The differences of this study with previous researches are that it directly examines the external factors that influence the bank on credit channeling in terms of technological development with the change time, in which can be described through a number of activities of non-cash transactions. Furthermore, it analyzes the effect on bank lending, which has a big impact on the Indonesian economy in the aggregate scale. In addition, this study represents the impact of the emergence of a variety of government programs that encourage non-cash transactions, as well as the Bank Indonesia's efforts in recent years to implement innovative forms of non-cash transactions, where both of these have enormous influences on economic activities in the society.

Conceptual Framework

The conceptual framework built for this research can be seen below:

Figure 2. Conceptual Framework



Sumber: Author's Illustration, 2016.

C. RESEARCH METHOD

The study on the impact of non cash transactions on credit channelling and its implication on economic growth uses descriptive research method. The data for this study is secondary data which is taken from Bank Indonesia website (www.bi.go.id) and Otoritas Jasa Keuangan (www.ojk.go.id).

Population of this study is all banks in Indonesia, and the sample is all commercial banks in Indonesia. This study uses the nominal transaction of RTGS, clearing, APMK, and electronic money as representatives of non cash transaction variables and the amount of credit channeled as representatives of credit channeling. All the data is in the form of monthly entries from January 2009 to September 2016.

Data analysis method that is used is time series data regression. Classical assumption test is done to make sure the data has no normality, heteroscedasticity, multicollinearity, and autocorrelation problem. Once all assumption is fulfilled, multiple linear regression method is done by doing the coefficient determination test, F test, and t test.

D. RESULT AND DISCUSSION

In the analysis of time series data, in determining the accuracy of model, testing on some classical assumptions that is used are Normality Test, multicollinearity, heteroscedasticity, and autocorrelation, and then do the selection of the best models with Stepwise method. Once the best model is determined, then the hypothesis testing is carried out with F - test and t - test at the level of 5% ($\alpha = 0,05$), as well as the Test Coefficient of Determination (R^2 test).

Normality Test aims to test whether the regression model, or residual confounding variables have a normal distribution.

Figure 3. Normality Test Result

One-Sample Kolmogorov-Smirnov Test

	Unstandardized Residual
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N		93
Normal Parameters ^{a,b}	Mean	.0000001
	Std. Deviation	103324513.7148
Most Extreme Differences	Absolute	.9829
	Positive	.067
	Negative	.067
Test Statistic		.067
Asymp. Sig. (2-tailed)		.200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Source: Statistical Output, 2016.

Based on the above data processing result, after a specified hypothesis:

h_0 : Residual normally distributed

h_1 : Residual not normally distributed

Then the data is processed and the resulting output pvalue (Asymp. Sig.) is $0,200 > \alpha (0,05)$ then H_0 is accepted. Therefore the conclusion is residual normally distributed.

Multicollinearity test aims to determine whether the regression model has a correlation between independent variables.

Figure 4. Multicollinearity Test Result

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-41011531.391	35944699.850		-1.141	.257		
APMK	6.380	.293	.992	21.746	.000	.111	8.996
RTGS	.017	.008	.061	2.239	.028	.312	3.204
SKNBI	-.610	.378	-.059	-1.613	.110	.171	5.855

a. Dependent Variable: KREDIT

Source: Statistical Output, 2016.

Based on the above output value obtained VIF by:

APMK = 8,996, which means ≤ 10 .

RTGS = 3.204, which means ≤ 10 .

SKNBI = 5.855, which means ≤ 10 .

VIF for all variables ≤ 10 , then it can be concluded that the data contained does not have multicollinearity.

Heteroscedasticity test aims to test whether the regression model occurred inequality residual variance from one observation to another observation.

Figure 5. Heteroscedasticity Test Result

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	14959863.523	22922456.527		.653	.516
APMK	.125	.187	.202	.668	.506
RTGS	.000	.005	.009	.050	.960

SKNBI	.105	.241	.106	.434	.666
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a. Dependent Variable: RES2

Source: Statistical Output, 2016.

With the hypotheses:

h_0 : Homoskedastisitas

h_1 : Heteroscedasticity

Then the data is processed, and the resulting output is pvalue (Sig.) f 0.506; 0.960; 0.666; 0,516 where everything are $> \alpha$ (0,05), it shows that H_0 is accepted. So the conclusion is heteroscedasticity is not happening.

Autocorrelation test aims to test whether the linear regression model was no correlation between bullies error in period t with bullies error in period t-1 (previous).

Figure 6. Autocorrelation Test Result

Runs Test

	Unstandardized Residual
Test Value ^a	-6608333.83531
Cases < Test Value	46
Cases $\geq$ Test Value	47
Total Cases	93
Number of Runs	53
Z	1.148
Asymp. Sig. (2-tailed)	.251

a. Median

Source: Statistical Output, 2016.

By using the following hypotheses:

h_0 : There is no autocorrelation

h_1 : There is autocorrelation

The testing is, and the resulting output is pvalue (Asymp. Sig.) 0.251, where the number is $> \alpha$ (0,05) which means that H_0 is accepted, thus there is no autocorrelation.

Test on each hypothesis can be done to see the significance of independent variables (X_i) to the dependent variable (Y) both collectively - together or partially carried out by F - test and t - test at the level of 5% ($\alpha = 0,05$), as well as testing the coefficient of determination (R^2 test). Here is the result of data processing:

Figure 7. F-Test Result

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	46700485709911580000.000	3	15566828569970526000.000	1410.573	.000 ^b
	Residual	982187872366663940.000	89	11035818790636674.000		
	Total	47682673582278250000.000	92			

a. Dependent Variable: KREDIT

b. Predictors: (Constant), APMK, RTGS, SKNBI

Source: Statistical Output, 2016.

By determining the hypotheses:

$h_0: \mu_1 = \mu_2 = \mu_3$

h_1 : at least one pair of μ_i that is different

The data is processed, then pvalue which can be seen from the Sig that is found.

Pvalue = 0,000

Which means that $pvalue < \alpha (0,05)$ then h_0 is rejected. It can be concluded that with a confidence level of 95%, this means the predictor variable (X) effect altogether on the response variable (Y).

Test of significance coefficient (bi) is performed with the statistics - t. It is used to test the partial regression coefficients of the independent variables. Here is the result of data processing:

Figure 8. T-Test Result

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-41011531.391	35944699.850		-1.141	.257
	RTGS	.017	.008	.061	2.239	.028
	SKNBI	-.610	.378	-.059	-1.613	.110
	APMK	6.380	.293	.992	21.746	.000

a. Dependent Variable: KREDIT

Source: Statistical Output, 2016.

APMK Variable with hypothesis :

$h_0: \mu_1 = 0$

$h_1: \mu_1 \neq 0$

and $pvalue = 0.000$, which means that $pvalue < \alpha (0,05)$ then h_0 is rejected. Therefore, with a confidence level of 95%, it can be concluded that the APMK variable has a significant effect on credit.

Clearing variable with the hypothesis:

$h_0: \mu_4 = 0$

$h_1: \mu_4 \neq 0$

and $pvalue = 0.110$, which means that $pvalue > \alpha (0,05)$ then h_0 is accepted.

Therefore, with a confidence level of 95%, it can be concluded that the variable clearing has no effect on credit.

RTGS variable with the hypothesis:

$h_0: \mu_3 = 0$

$h_1: \mu_3 \neq 0$

and $pvalue = 0.028$, which means that $pvalue > \alpha (0,05)$ then h_0 is accepted. Therefore, with a confidence level of 95%, it can be concluded that the RTGS variable has an effect on credit.

Thus the research model derived from this calculation is:

$$Y = -41011531,391 + 6,380X_1 + 0,017X_3$$

With the interpretation of the model:

1. $0.006X_1$

Each increase of one million APMK will increase credit channeling by 6,38 billion. Assuming the other predictor variables held constant.

2. $0,019X_3$

Each increase of one billion RTGS will increase credit channeling by 0,019 billion. Assuming the other predictor variables held constant.

Coefficient determination test is used to measure the goodness of a model. If the value of R^2 is small then it means the ability of independent variable in explaining the dependent variable is very limited. A value close to one variable means that the independent variable can be used to predict all of the information the dependent variable. Here is the result of data processing:

Figure 9. Test of Coefficient Determination Result

Model Summary

Model	R	R Square	Adjusted Square	Std. Error of the Estimate
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1	.990 ^a	.979	.979	105051505.41823
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a. Predictors: (Constant), APMK, RTGS, SKNBI

Source: Statistical Output, 2016.

Adjusted R Square is equal to 0.979 or 97.9%. Thus it can be said that the influence of non-cash transactions variable to variable loan portfolio was 97.9% while the rest (2.1%) is influenced by other variables outside the research.

A summary of the influence of each independent variable on the dependent variable can be seen in the following table:

Table 2. Statistical Result Overview

Type	Variable	Hypothesis	Output	Note
Dependent Variable (Y)	Credit channeled			
Independent Variable (X1)	APMK	Affect variable Y	Affect Y variable	Positive
Independent Variable (X4)	Clearing	Affect variable Y	Does not affect Y variable	
Independent Variable (X3)	RTGS	Affect variable Y	Affect Y variable	Positive
Simultaneous Effect		Affect variable Y	Affect Y variable	

Source: Research result, 2016, data processed.

APMK Influence on Credit Channeling

APMK variable has a positive effect on credit/ APMK relationship has positive effects on credit due to the high interest rates on credit cards. This causes the input of public funds for banks to be high, so the amount of loans disbursed also higher.

The interest rate keeps increasing and up until today, Indonesia has the highest credit card interest rates among the ASEAN countries. Below is an overview of ASEAN credit card rates by country:

Table 3. ASEAN Credit Card Interest Rate

Country	Inflation	GDP	Population	Credit Card Interest Rate	Last Updated
Indonesia	5,7%	4,151	252,164,800	41,75%	Feb 2017
Vietnam	18,9%	2,942	89,708,900	29,23%	Feb 2017
Malaysia	3,3%	13,800	30,401,400	15%	Feb 2017
Singapore	4,65	50,180	5,469,700	15%	Dec 2016
Philippines	5,3%	3,546	100,553,900	3,25%	Feb 2017

Source: ASEAN Deposits, 2017.

This affects the credit channeling, due to the money multiplier theory. The more the payment instrument replacement is used, the smaller the amount of currency held and conversely, the less (or perhaps the absence) the use of payment tool replacement will cause an even greater currency desired that affect the money multiplier, to then influence the behavior of banks and credit.

RTGS Influence on Credit Channeling

RTGS variable has a positive effect on credit. This is due to two major reasons, which are because RTGS contribute to both loans from other banks and third-party funds. Here is a RTGS transaction value based on transaction type:

Table 4. RTGS Transaction Value based on Transaction Type

Period	Public	PUAB (Pasar Uang Antar Bank)	Government
2015	20,221,883.37	6,106,286.02	2,857,562.09
2014	19,416,109.34	5,924,771.37	2,232,312.72
2013	17,586,512.48	5,600,048.49	2,114,221.56
2012	15,268,783.46	4,740,458.02	2,004,641.41
2011	13,176,735.52	5,403,787.10	1,671,944.45
2010	10,558,099.13	4,723,207.17	1,274,845.75
2009	8,182,633.47	4,431,067.68	1,337,811.67

Source: Bank Indonesia, 2016, data processed.

Clearing Influence on Credit Channeling

Clearing variable has no effect on credit. This is due to various reasons, the first being the number of nominal restrictions on clearing transactions. Nominal of clearing is limited to a maximum of Rp. 100 million, thereby clearing included in the transaction is small. The nominal amount of clearing transactions can be seen on figure 4.11. In addition the amount of the costs incurred for clearing transactions is quite low at only Rp. 5,000.00 per transaction (Bank Indonesia, 2015). This shows that the amount of profit earned by the bank through clearing is not significant enough compared to other non-cash transactions.

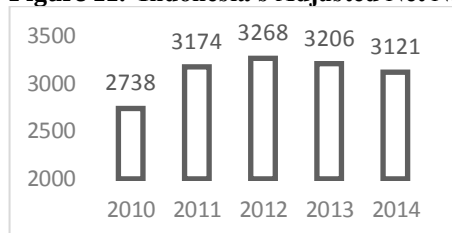
Non Cash Transactions on Credit Channeling

Variable of non-cash transactions are constitutently influential together toward credit channeling. This indicates that the evolution of the payment system, from cash payment system towards non-cash payment system, has an impact on customer behavior changes in the transaction, which in turn increase the sources of funds of the bank, so the bank can provide loans to a larger public in the form of credit. By increasing the efficiency of payment systems and transactions, banks are increasingly easy to collect funds from the public, where it is used by banks to improve their products of non-cash. This is in line with previous studies, namely by Mukhlis (2011), Pratama (2010), Sari (2013) and Umam (2016) who also concluded that the biggest factor affecting the credit channeling is third party funds.

Credit Channeling Implication on Economic Growth

From the macroeconomic side, according to Panorama (2008) to look at the various factors that cause changes in aggregate demand and ultimately lead to changes in the short-term economic growth is usually approached with the IS-LM model. The IS curve describes the relationship between the interest rates on the market condition of goods and services, while the LM curve to see the relationship with the interest rates of money market conditions. Here is an overview of the development of Indonesia's income per capita:

Figure 11. Indonesia's Adjusted Net National Income per Capita (current US\$)



Source: World Bank, 2016, data processed.

In the next two years the number has decreased, whereas the number of credit continued to rise significantly. This decrease was caused by a number of Developing Countries having growth throughout the year, but also raise a high levels of earnings inequality, including Indonesia. It shows that the main problems in economic development is an increase in GDP, reduction of income inequalities and poverty eradication, but these sometimes becomes a dilemma between the importance of economic growth or the reduce of the income gap where high growth does not necessarily guarantee that the income gap will be low.

E. CONCLUSION AND SUGGESTION

Conclusion

This study aims to investigate the influence of non-cash transactions on the loan portfolio, and its implications for economic growth in 2009 and 2016. Based on the analysis and discussion that has been described, the result can be concluded as follows:

1. The result indicates that the variable of non-cash transactions affect simultaneously on credit.
2. The result indicates that the variable APMK and RTGS have a positive effect on credit. This may imply that by the time APMK number of transactions increases, the amount of credit channeled by banks also increased. Also, when the RTGS number of transactions increases, the amount of credit channeled by banks also increased. On the other hand, clearing variable has no effect on credit.

Suggestion

Based on the research findings, it can be formulated some suggestions related to policy implications, namely:

1. APMK variable affect the total credit channeling. Therefore the government must pay attention to the development of credit card transactions and debit cards, especially in setting the interest limitations drawn by the bank.
2. Electronic money variable does not pass the statistical calculation. Though, the government must address the technical development costs that are relatively expensive by setting a more integrated technical systems.
3. RTGS variable affect the total credit channeling. Therefore the government must pay attention to the focus of the use of APMK, which is quite high for the PUAB. The government need to pay a close attention to the possibility that RTGS can be used as a means of source of funds. The socialization of payment system, and the development of economic activities in the cities need to be implemented.
4. Clearing variable does not affect the credit channeling. The tariff that is issued in each clearing transactions need to be reviewed so that it is not only as the replacement cost for the banks but it can also be one source of income.
5. Total credit channeled increased along with economic development. For policies related to credit must be constantly monitored and developed, considering its potential to productivity, employment, and henceforth, the welfare of society.

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