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In Search for Islamic Macroprudential Policy in Indonesia: The Case of Financing to Value (FTV) and Property Financing

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Abstract

This study aims to examine the impact of macroprudential policy particlarly the relaxing of Financing to Value (FTV) on property financing of Islamic bank in case of Indonesia. In addition, this paper also analyzes the impact of macroeconomic variables and specific factors on property financing in Islamic Bank. This paper collects data from the Bank Indonesia website, the Financial Services Authority (FSA) and the Central Statistics Agency (CSA) form January 2010 until April 2016. By employing Vector Error Correction Model (VECM), this study found that inflation and Industry Produce Index (IPI) have been positively influence on the property financing, while the BI rate and financing to deposit ratio (FDR) have been negatively influence on the property financing. While the relaxing of FTV policy also negatively influence on the property financing. Therefore, This study conludes that the policy have not effected yet.

Keywords:

Macroprudential Policy, Financing to Value (FTV), Property Financing, Vector Error Correction Model (VECM)

Abstrak

Penelitian ini bertujuan untuk menguji dampak dari kebijakan makroprudensial terutama relaksasi dari Pembiayaan terhadap Nilai (FTV) pada pembiayaan properti bank syariah dalam kasus Indonesia. Selain itu, makalah ini juga menganalisis dampak variabel makroekonomi dan faktor-faktor spesifik pada pembiayaan properti di Bank Islam. Makalah ini mengumpulkan data dari situs web Bank Indonesia, Otoritas Jasa Keuangan (OJK) dan Badan Pusat Statistik (CSA) formulir Januari 2010 hingga April 2016. Dengan menggunakan Vector Error Correction Model (VECM), studi ini menemukan bahwa inflasi

dan Produksi Industri Indeks (IPI) telah memberikan pengaruh positif pada pembiayaan properti, sementara BI rate dan financing to deposit ratio (FDR) telah berpengaruh negatif terhadap pembiayaan properti. Sedangkan relaksasi kebijakan FTV juga berpengaruh negatif terhadap pembiayaan properti. Oleh karena itu, penelitian ini menyisihkan bahwa kebijakan belum efektif.

Kata Kunci:

Kebijakan Makroprudensial, Pembiayaan Terhadap Nilai (FTV), Pembiayaan Properti, Model Koreksi Kesalahan Vektor (VECM)

INTRODUCTION

Global financial crisis which happened in 2007-2008 has caused the failed of many financial institutions in the world, including in Indonesia. This crisis has been bringing on the detoriate of financial and payment system (Herarti, 2015). Therefore, Bank of Indonesia as policymakers has revised their policies related to the financial stability including macroprudential policy.

On of the most crucial policy in which has been taken by Bank of Indonesia in facing these crisis is by controlling credit for property sector. This policy is called Loan to Value (LTV) for conventional banking and Financing to Value (FTV) for Islamic banking. LTV/FTV is the percentage of collateral or Down Payment that must be provided by debtor compared to the total of loan. Therefore, when the growth of property is high and tend to the economic bubble, LTV/FTV is very useful to reduce this growth.

Policy for tightening of LTV/FTV in 2013 has been caused the increased the growth of cerdit for property. It can be seen from the figure 1, whereby the property credit growth in 2013 decreased significantly at 15.66% from 26.56% in 2012. Nevertheless, that policy has big impacts on property credit until 2015. As result, Bank Indonesia releases the relaxing of LTV/FTV property policy to boost the credit growth.
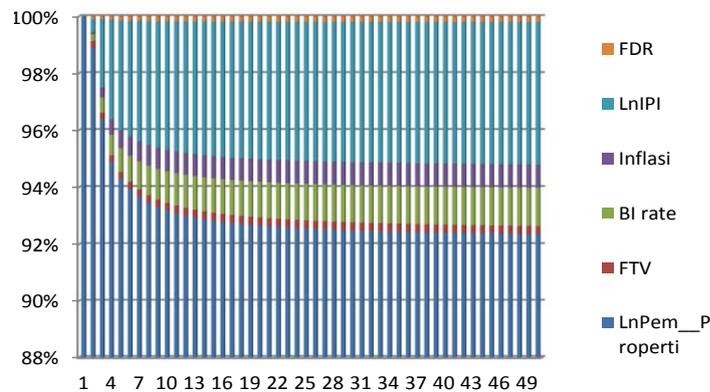
Figure 1. Growth of Property Credit in 2012-2015

Credit for roperty is also influenced by other factors beside LTV/FTV, namely both the internal factor (banking) and macroeconomic factors. According to Aviliani (2015: 380), financial instability could affect the banks' performance, especially in the property credit. There are some studies related to macroprudential policy and property financing. Pradana and Sampurno (2013) shows that BI rate is the most important variable that has impact on the volume of credit for property. The other variables that have significant impact on Credit for Property are Loan to Deposit Ratio (LDR), Capital Adequacy Ratio (CAR), Return on Asset (ROA) and inflation. In addition, Marisza (2015) also shows that inflation and interest rate has negative on credit volume, but for LDR has positive impact.

Although in the conventional literature, there are some studies on the issue of macroprudential policy related to the credit for property, but the research on Islamic Macroprudential is still limited. Therefore, the objective of this study is aimed to examine the impact of macroprudential policy in particular about the relaxing of Financing to Value (FTV) on the property financing in Islamic bank in Indonesia. Moreover, this research also will analyze the impact of macroeconomic variables and internal factor on the credit for property.

The organization of the paper is as follows; section II Provided literature review. Section III outlines the data and the methodology. Section IV of the result and discussions and in the section V shows the conclution of main finding and Policy Recommendations.

LITERATURE REVIEW

General Concept of Macroprudential Policy

The Issue of macroprudential policy has been more popular in Indonesia after the global financial crisis in 2008. Bank of Indonesia as a regulator, setting it and released the legal foundation, namely Bank Indonesia act. No.16/11/PBI/2014 regarding to macroprudential regulation and supervision at July, 01, 2014. As Mentioned by Bank Indonesia (2015), generaly, macroprudential policy leads to more overall analysis on the financial system rather than individual financial institution. Utari and Arimurti (2012) describes that a fundamental concern of macroprudential policy is a prudential regulatory instrument which is used to achieve stability in the whole financial system and not just the individual health of the financial institution. Macroprudential policy is needed to anticipate and mitigate financial risk.

The implementation of macroprudential policy is not only can eliminate the vurnerability of the financial system to the financial shock but also can support the stability of the financial system, enhance market resilience and reserve as an early warning system to anticipate potential crisis in the future. Hence, there are three important goals in the implementation of macroprudential policy such as:

1. Preventing financial imbalances
2. Reducing systemic risk that arises from inter-linkages, common exposures and procyclicality of the financial system, and
3. Discouraging risk taking of financial institutions that may have systemic implication.

According to Delgado and Mynor (2011) in Purnawan and Nasir (2015), the use of macroprudential instruments is not a new thing, however more macroprudential instrument are needed after the global financial crisis in 2008. Off courses, it is depend on the level of economic growth, exchange rate, and durability toward a financial shock. That instruments are used often as a complementary for monetary policy and fiscal policy. Some Macroprudential policy that used in Indonesia is as described in table 1. Each of instrument is used for mitigating the risks such as credit risk, liquidity risk, governance risk and capital risk.

Table 1. The Instrument of Macroprudential Policy

Risk	Instruments
Credit	1. Loan to Value (LTV) ratio
	2. Financing to Value (FTV) ratio
	3. Statutory Minimum Loan to Deposit Ratio (LDR Reserve)
	4. Lending Rate (prime lending rate)
Liquidity	5. Statutory Minimum Loan to Deposit Ratio (LDR Reserve)
	6. Net Open Position (NOP)
Governance	7. Lending Rate (prime lending rate)
Capital	8. Counter-Cyclical Capital Buffer(CCB)
	9. Capital Surcharge

Source: Bank Indonesia (2015)

Financing to Value (FTY)

FTV is the ratio between the value of financing that can be provided by Islamic banks against the collateral value of the property at the time of the provision of financing by the price of the last assessment (Bank Indonesia Regulation No. 17/10/PBI/2015, 2015). This policy set the magnitude of the amount of credit that can be disbursed by banks to customers with a decrease or increase in payment (down payment) (Budiyanti, 2015).

As for FTV, the calculation of the financing is set according to the type of contract used are:

1. Murabahah or contract Istishna '. Funding is determined based on the cost of financing given to customers in accordance with the initial contract.

2. Akad Musharaka Mutanawisah (MMQ). Set based on the inclusion of banks for ownership of the property as stated in the financing agreement.

3. Ijarah muntahiya Bittamlik. Funding is determined based on the result of reduction in property prices with a deposit as detailed in the financing agreement.

Macroeconomic Theory and Internal Factor of Islamic Banking

BI *Rate*

The monetary target of Bank of Indonesia is controlling the value of the rupiah through inflation with BI rate policy. In monetary theory, this policy is called the discount rate (discount rate). If the discount rate was increased, the ability of banking for lending the money will decreased. Therefore, the amount of money in circulation was reduced and inflation can be prevented (Nopirin, 2014). In general, the central bank will raise the BI rate when inflation rises higher than a specified target and vice versa. When the BI rate is increased it will affect the rising interest rates on deposits which further affect the higher lending rates.

Inflation

Boediono (2005) states that inflation is the rising prices in general and continuously. Some of the causes of inflation are rising private consumption, excessive liquidity in the market that triggered consumption and speculation, including their disfluencies in the distribution of goods both iu due to natural disasters or due to human moral hazard. Firdaus and Ariyanti (2004) in Setifandy (2015) stated that in lending, although credit goes smoothly where the debt principal and interest are met, but over time, the value of money will stay down because of inflation and the purchasing power of money will be lower compared to when the credit is given.

Industrial Production Index (IPI)

Industrial Production Index is an economic indicator that name in it calculated the real production output of the manufacturing industry, mining and other manufacturers such as gas and electricity (Forex Indonesia: 2016). IPI is typically developed to measure increases and decreases in production output both on large and medium industries. IPI also a proxy of economic growth. Industrial Production Index can be used as a leading indicator of economic condition of a country. The level of production in a manufacturing company has a correlation with the level of employment and labor income and can also be used as a barometer of the dynamics that operate in the business cycle (Forex4you: 2016).

FDR

FDR is a ratio that compares the financing to the third-party funds. This ratio indicates how much money is able channeled to financing obtained from third party funds (Adzimatinur et.al., 2016). The higher the ratio of FDR, the ability of Islamic banking in the finance portfolio also getting bigger. FDR also be used to measure the liquidity of Islamic banking. Many studies have been done related to on how the influence of internal factors and macroeconomic factors on the banking loan portfolio, namely property financing as well as how the effectiveness of FTV policy in regulating excessive lending. Titia Dwianingrum (2015) examines the Distribution Rate Determination mortgage (Period After Policy Loan to Value) at 5 Commercial Banks in Indonesia. This study uses a quantitative method with regression analysis of panel data which result in that amount of lending mortgage bank BTN, BNI, BCA, Mandiri and CIMB Niaga better take into account the changes in the variable DPK, LDR while the NPL, CAR, ROA, ROA and BI Rate not too taken into account in determining the amount of the mortgage loan portfolio.

Another study conducted by Ida Ayu Putri Saraswati (2014) with the title of Bank Indonesia Policy Analysis of the Loan to Value at PT. State Savings Bank (Persero).Tbk Branch Singaraja. This study used qualitative descriptive analysis that produces that Bank BTN branches of Singaraja LTV implementing provisions issued by Bank Indonesia in 2013, the impact faced by the bank in the form of a decrease in mortgage loans and there is competition between banks in extending credit. BTN Bank branch Singaraja mitigate the impact by conducting joint cooperation in the provision of mortgage developer.

Additionally, Marisza (2015) with the title Analysis of Effect of Policy Loan to Value (LTV), Inflation, Interest Rate and Loan to Deposit Ratio (LDR) to the Home Loan Disbursement Period Lampung 2010: 01-2014: 09 examines the influence LTV pengetatatan policy against property loans in the banking area of Lampung. The results of this study explains that inflation and interest rates negatively affect the amount of the mortgage portfolio, and LDR have a significant effect. While the period before and after the policy is a significant difference, LTV policy fails to suppress the amount of the mortgage portfolio in Lampung Province.

Based on previous studies, no studies have focused on the influence of macroprudential policy instruments especially LTV/FTV against property financing in Islamic banking Indonesia so that the research is quite different from the objects, variables, and tool of analysis.

DATA AND METHODOLOGY
Data

This study uses data in the form of monthly time series for the period from January 2010 to April 2016. Data were obtained from the publication of Bank Indonesia, the Financial Services Authority, as well

as the Central Bureau of Statistics of Indonesia. The variables used are the property financing variables, FTV, BI rate, Inflation, Industrial Production Index (IPI), and FDR. In detail, the data can be seen in the following table 2.

Table 2. Variable and Sources of Data

Variable	Definition	Source
Property Financing	Total property finance in Islamic banking from home footprint, flats and houses shops	Financial Fervices Authority
FTV	Macroprudential instruments governing credit risk, especially in the property and motor vehicles	Bank Indonesia
BI *rate*	Indonesia Bank Interest Rate	Bank Indonesia
Inflation	Price increases	Bank Indonesia
IPI	Industrial Production Index	Central Bureau of Statistics
FDR	Financing to Deposit Ratio	Financial Fervices Authority

Methodology

Vector error correction model is a VAR model is restricted to non-stationary variable data which are known to have co integration or possible long-term impact. In general, the steps in using the model VAR/VECM starting with stationary test the data, and then test the length of inaction (lag) is optimal, stability testing VAR/VECM, Granger causality test and cointegration test, estimation of the VAR model, Impulse Response Function (IRF) and Forecast Error Variance Decompotition (FEDV). these steps can be described in the following figure 2.
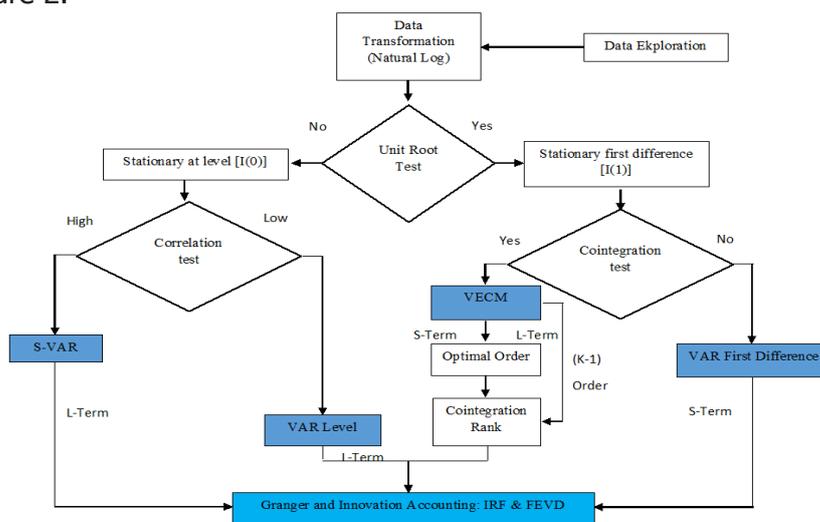
Figure 2. VAR Analysis Process

In this study, we follow VAR models from Sahabat (2009) and Nasir (2008) with such modification as the different variables.

$LnPemb.Propertiy_t = C_1 + a_1 LnPemb.Propertiy_{t-1} + \Sigma a_1 FTV_t + \Sigma a_1 BI\ rate_{t-1} + \Sigma a_1 Inflation_{t-1} + \Sigma a_1 LnIPI_{t-1} + \Sigma a_1 FDR_{t-1} + \varepsilon_i$

Where:

LnPemb.Properti	= Total Property Financing
FTV	= *Financing to Value*
BI *rate*	= Interest Rate
Inflation	= A general Increase in prices
LnIPI	= Industrial Production Index
FDR	= Financing to Deposit Ratio
ε_i	= Error Term

Finding and Discussions
Findings

Model VAR/VECM has several steps to achieve the intended results of which are stasionaritas test data, the optimal lag test, Granger stability test, stability test VAR/VECM and other test like yan've seen from the picture above.

Stasionaritas Test Data

Stasionaritas test data in this study using formal testing by the unit root test (unit root test). The method used is the Augmented Dickey Fuller (ADF) and test the Philips Peron (PP). Here are the results of testing the method ADF and PP at current level:

Table 3. Method Test Results Stationarity ADF and PP Level Level

Variable	ADF		*Philips-Perron*	
	T-Stats	Prob.	T-Stats	Prob.
Pemb. property	1.694603	0.7441	-1.914109	0.6373
FTV	-1.106084	0.9208	-1.106084	0.9208
BI *rate*	1.806894	0.6915	-1.567003	0.7967
Inflation	-2.621723	0.2722	-2.104965	0.5345
IPI	-6.886215 *	0.0000	-6.897410 *	0.0000
FDR	-1.514768	0.8159	-1.671223	0.7543
Test Critical values (MacKinon)				
1% Level		-4.085092		-4.085092
5% Level		-3.470851		-3.470851
10% Level		-3.162458		-3.162458

Note: * indicates a data stationary at current level

** Indicates data at the level of the first difference stsioner

Table 3 explains that the current level by using ADF and PP, simply IPI variables are stationary with the value of T-Stats 6.886215 > value MacKinon critical value that is less than 1% of 4.085092, 3.470851 amounted to 5% and 10% by 3.162458. Meanwhile, other variables such as property finance, BI rate, inflation, FTV and FDR is not stationary at the current level because it has the T-statistics are less than the critical value MacKinon.

The test results above suggest that the data are not stationary at level, so that the required testing at the next level is the first difference. Below are the results of testing in the first difference:

Table 4. Method Test Results Stationarity ADF and PP *Different First* Level

Variable	ADF		Philips-Perron	
	T-Stats	Prob.	T-Stats	Prob.
Pemb. Property	-7.832424 **	0.0000	-7.835955 **	0.0000
FTV	-8.795663 **	0.0000	-8.795663 **	0.0000
BI *rate*	-4.731276 **	0.0014	-4.731276 **	0.0014
Inflation	-6.219345 **	0.0000	-5.927075 **	0.0000
IPI	-8.218785 **	0.0000	-8.218785 **	0.0000
FDR	-8.575537 **	0.0000	-8.575537 **	0.0000
Test Critical values (MacKinon)				
1% Level	-4.086877		-4.086877	
5% Level	-3.471693		-3.471693	
10% Level	-3.162948		-3.162948	

Note: * indicates a data stationary at current level

** Indicates data at the level of the first difference stationary

Table 4 shows that the level of the first difference by using ADF and PP, all variables have a value of t-Stats > value MacKinon critical value at 1% of 4.086877,3.471693 amounted to 5% and 10% by 3.162948.

Optimal Lag Test

This steps is taken to determine the most optimal lag is to see the value of AIC, SC and HQ lowest. In table 5 below are the results of testing optimal lag:

Table 5. Optimal *Lag* Test Results

lag	AIC	SC	HQ
0	9.961122	10.15385	10.03768
1	-2.126564*	-0.777467*	-1.590686*
2	-1.850309	0.655157	-0.855108
3	-1.493997	2.167838	-0.039472

4	-1.069469	3.748735	0.844381
5	-0.769844	5.204729	1.603330
6	-0.768664	6.362278	2.063833

*   = Optimal Lag

AIC   = Akaike Information Criterion, SC = Schwarz Informatio Criterion,

HQ   = Hannan-Quinn Information Criterion

Table 5 illustrates the lowest value of the indicator AIC, SC and HQ is at lag 1 with a value of -2.126564, -0.777467 and -1.590686. Thus, all the indicators recommended as the optimallag 1 so that it can be concluded that any shock that in one variable will be responded by other variables with a lag time of one period.

Stability Test VAR / VECM

The test results show that the system stability VAR VAR/VECM built stable. It is seen from the modulus of which is entirely under one as shown in table 6 below:

Table 6. Stability Test Results VAR / VECM

Root	Modulus
0.491764	0.491764
0.326845	0.326845
-0.216893 - 0.023230i	0.218133
-0.216893 + 0.023230i	0.218133
0.008498 - 0.079895i	0.080345
0.008498 + 0.079895i	0.080345

In addition to seeing the value of modulus, stability VAR/VECM can also be detected using AR Roots chart. The dots in the picture are in the loop, not out of the circle line. Thus, we can conclude that the model VAR/VECM built stable. Conclusions can be seen in the results chart AR Roots as follows in figure 3.
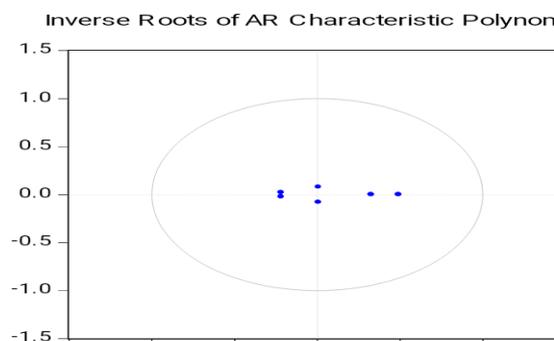
Figure 3. Graph Test Results *AR Roots*

Johansen Cointegration Test

The test results were compared between Trace Statictic value and the value of Maximum Eigenvalue with critical value at 5% alpha as well as by looking at the probability value to indicate whether there is cointegration in the VAR system is outlined in the following table 7.

Table 7. Results of Johansen Cointegration Test

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized No. of CE (s)	Eigenvalue	Trace Statistic	0:05 Critical Value	Prob. **
none *	0.489643	117.3072	95.75366	0.0008
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized No. of CE (s)	Eigenvalue	Max-Eigen Statistic	0:05 Critical Value	Prob. **
none *	0.489643	49.77574	40.07757	0.0030
At most 1 *	0.369813	34.16872	33.87687	0.0462

*   Denotes rejection of the hypothesis at the 0:05 level

** MacKinnon-Haug-Michelis (1999) p-values

Cointegration test results in table 7 shows the value of Trace Statistic of the Trace test of 117.3072 is greater than the critical value at 5% alpha is 95.75366 mean that there is one cointegration equation is built. Later in the Maximum Eigenvalue test, the value of max-eigen his statistic- of 49.77574 and 34.16872 sequentially greater than the critical value is 40.07757 and 33.87687. It is clear that there are two equations that terkoitegrasi in the system. Thus, all variables tested cointegrated or have a long-term relationship.

VECM Model Estimation

Based on the analysis, inaction endogenous variables in the VAR system is statistically insignificant possibility. In addition, the interpretation of analytical results VECM too difficult, so commonly used in the analysis of the test VECM is Impulse Response Function (IRF) and the Forecast Error Variance Decomposition (FEDV) in interpreting the results.

Impulse Respone Function (IRF)

IRF test results to see the effectiveness of policy easing FTV, macroeconomic variables and internal factors of Islamic banks can be seen in the above chart in figure 4. The second graph shows that the response to the shock of the property financing policy variables FTV is negative. At the beginning of the period until the 5th period fluctuations. But then stabilized until the end of the observation period with a standard deviation of -0.3586.
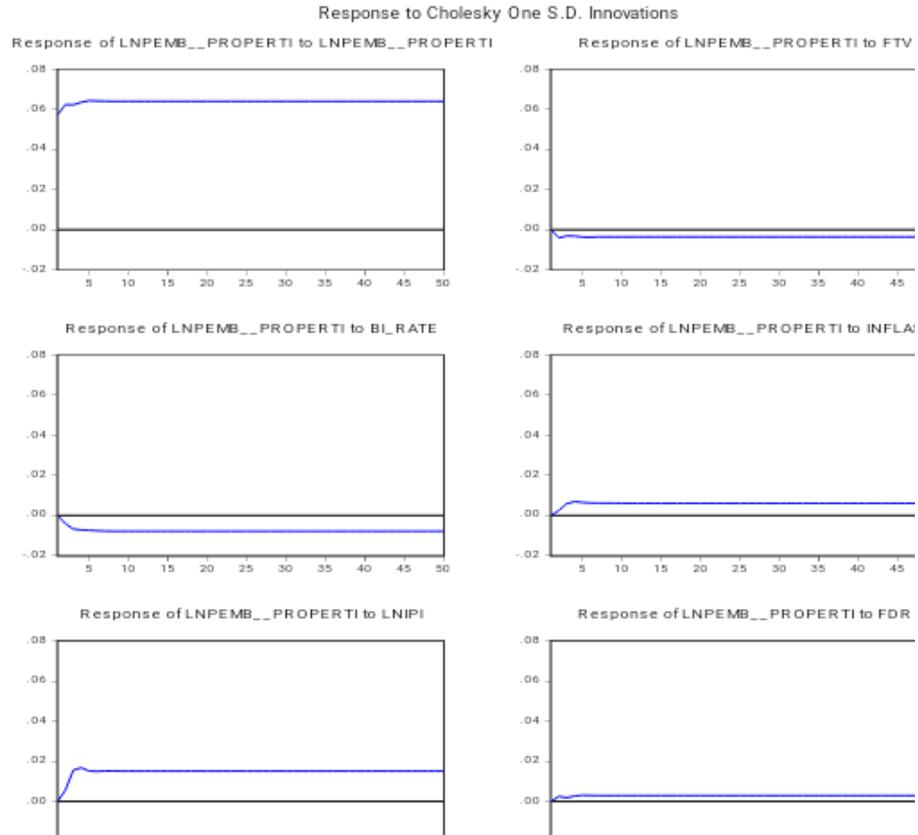
Figure 4. Test Results Graph Impulse Response Function (IRF)

As for the response property financing due to their variable shock BI rate in the coming period as a whole is negative. It can be seen from the observation line is below the line standard deviation of 0.0. In the period from the beginning to the period of the 6th had been fluctuating up in the end, the response was stable until the end of the observation period with a standard deviation of -0.007878.

IRF analysis then goes on to explain property finance response to shocks that occurred on inflation. In the first period to 7 fluctuations response from property financing. But then stabilized in the next period until the end of the observation period with a standard deviation of 0.006109. Overall the property finance response to inflation is positive, visible from the observation line is above the standard deviation of 0.0.

Analysis IRF third is the variable shock IPI for property financing was positive. The results make it clear that in the early period until the 4th period there was an increase in positive pretty good and fluctuate until the period 7th. But in the next period until the end began to stabilize in the standard deviation of 0.015081.

Last IRF analysis is a response peroperti financing for their shocks of internal variables that FDR bank. Shock is given a positive response

to the financing of the property. There is an increase until the 6th period. And stable until the end of the observation period on the standard deviation of 0.002893.

To easily view response then presented a summary of the Property Financing IRF test results as follows table 8.

Table 8. Summary of Test Results IRF

Shock Variables	Response Property Financing
Pemb. Property	Positive, stable from period ke- 7
FTV	Negative, stable from period to 5th
BI *rate*	Negative, stable from period to 7th
Inflation	Positive, stable from period to 8th
IPI	Positive, stable from period to 8th
FDR	Positive, stable from period to 7th

Forecast Error Variance Decomposition (FEDV)

In the last analysis is a method VECM Forecast Error Variance Decomposition (FEDV) are useful to support the results of previous analysis. FEDV provide information the contribution of a variable to change the variable itself and other variables in the coming period. Values are in the form of a percentage of the analysis results so they will know the variables that contribute most to the specific variables. Here is the result of the analysis FEDV:
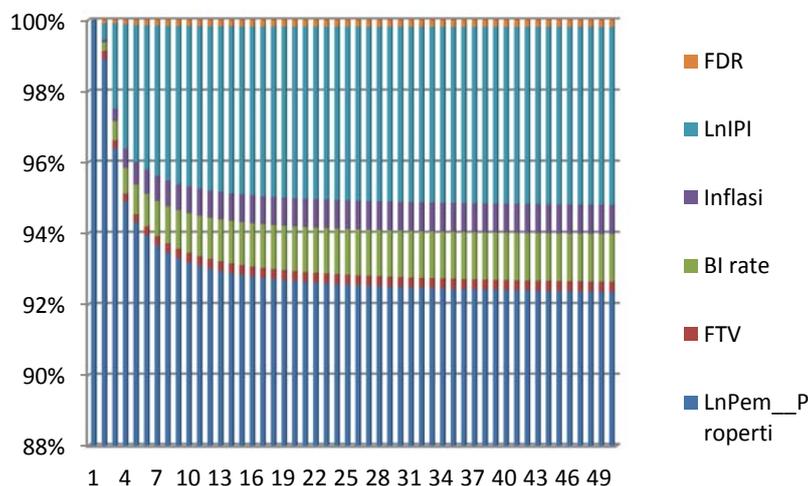
Figure 5. FEDV Graph

Based on the figure 5 and test results FEDV in annex 3.9 shows that the largest contribution to the diversity of the variables affecting the Property Financing is herself with an average of 93.09%. In the

early period, influential Property Financing 100% but then declined in each period be 92.36% at the end of the period.The second largest contribution comes from the IPI variable with an average contribution of 4.55%. Variable sennatiasa IPI has increased in each period with contributions at the end of the period amounted 5:00%. Then, a third contribution of variables affecting diversity Property Financing is the BI rate by the average value of 1:17%. In the early period accounted for 0% and then increased to 1:34% at the end of the period.

The next largest contribution to the inflation variable average contribution is 0.75%. Each period has increased contributions until the end of the period amounted to 0.82%. Next is the contribution of variable FTV ranks fifth with an average value of 0:27%. This variable has also increased in each period until the end of the period contributed 0.28%. The smallest contribution came from FDR variable with an average of 12:16%. FDR variable contribution to variable Property Financing increased. At the beginning of the period only accounted for 0% and then at the end of the period contributed to 0:18%. The complete results of the test FEDV contained in the annex 3.9.

DISCUSSION

Property Financing

IRF test results showed that the response to the shock of the property financing easing policy variables FTV is negative. The average contribution FTV variable to variable property financing based on test results VD is very small in the amount of 0.27%. There are several reasons to be negative FTV policy namely that the purchase of the house by the client is a long-term decision and depends on his perceptions of economic conditions. If the economy is not yet clear, the customer usually refrain from buying the house so as to make the distance (time lag) on the effectiveness of the policy.

In 2015, economic growth is slowing in the amount of 4.7% in the 1st half, down fromthe same period in 2014 amounted to 5.17%. This was triggered by the global economic slowdown including Indonesia trading partner countries as well as the weakening of commodity prices in the international market. In addition, due to uncertainty in financial markets associated with the uncertainty of the benchmark interest rate The Federal Reserve (Ariyanti, 2015).

Property loan growth also slowed in 2015 which grew only 13.6% lower than a few months earlier by 14.1% in June, (Sandy, 2015) so that many developers are already postpone the project due to the weakening of the Indonesian economy at the time. Many developers are delaying the project led to the banks a bit difficult to work with developers so that their FTV policy can not be directly perceived.

FTV ineffectiveness easing policy in 2015 have been addressed by the government and Bank Indonesia issued Regulation No. 18/16/PBI/2016. This regulation is published in order to improve an earlier policy to reach the phase ability to resist cutting property financing and yet strong enough to boost growth financing. This policy further loosen LTV ratio/FTV than the previous policy. These results are also consistent with research Marisza (2015) concluded that the policy tightening LTV failed to suppress the amount of credit property in Lampung Province which caused demand for mortgages remains high.

BI Rate

The results of the analysis of IRF explains that the BI rate to variable Shock response of property financing is negative. Then from the VD analysis, shows that the variable BI rate accounted for 1:17% on average observation period. The negative effect of the BI rate property finance in line with the existing theory.BI rate which is the reference rate set by Bank Indonesia will affect Lending Rate (prime lending rate) in the banking system. Then the prime lending rate will be the reference banks in increasing or decreasing the quantity of credit allowing the occurrence of bad debts. However, in Islamic banking, BI rate does not directly affect the financing for Islamic banking does not apply the system of interest rates. BI policy rate is raised or lowered not necessarily make Islamic banks raise pricing of financing, including financing of the property. Because it is associated with the pricing of the predetermined contract and can not be changed in mid-financing agreement. Only when the BI rate is low, the level of margin able competitive Islamic banking. Meanwhile, when the BI rate is high, Islamic banks have no risk of competing for the results of third-party funds, for DPK in conventional banks offering higher interest rates (Sudarwanto, 2011). Thus, the BI rate negatively affect property financing. This result is also the same with research Marisza (2015) back, that interest rates and inflation negatively affect the amount of the mortgage portfolio in Lampung province.

Inflation

The results of the analysis of IRF explained that the shocks of inflation variable positive effect on response property financing. In connection with its contribution to the variable property financing, inflation accounted for 0.74% in the period average. The big difference in the hypothesis with the results of the property can be argued that in the inflation rate has no effect on the decline in property finance for property no relation to the price of land is never down. Every year the land continues to increase, especially in places that are strategic and potential economic growth. The price of land followed by property prices always go up every year. According Maisarah (2015), there are several

reasons property prices do not decline, one of which is the interest of Indonesian society and foreign investment in the property is quite high. Thus, prices rise (inflation) has positive effect and keep improving the property finance portfolio. The results of this study do not differ from research Qoyum (2015) which concluded that the BI rate and inflation does have a negative effect on credit growth in the banking and finance growth in Islamic banking.

IPI

Results of processing by the analysis of IRF is the positive impact generated for their shock variable IPI for property financing. The average contribution to the financing of his property by 4:54%. The underlying reasons for the positive influence of the IPI as a proxy for economic growth to finance the property is that it is theoretically possible credit at banks including Islamic banking has a causal relationship with economic growth. This relationship occurs because of the higher loans disbursed banks, will spur economic growth in the sector given the credit. In this case, the credit be used as a driver of economic growth. Conversely, when high economic growth will lead to increased credit demand.And if economic growth is less excited or unstable, the demand for credit will also be sluggish (Purba, 2011). Because the property finance is one of demand for credit, of course this theory is relevant to the financing of the property that is affected positively by IPI. The above theory is corroborated by studies of Syahfitri (2013) with the result that economic growth positive effect on bank credit.

FDR

Based on the analysis of IRF explained that the response of financing peroperti for their shocks of the bank's internal variables that FDR was positive. VD analysis that FDR variables are contributing to an average of 0:16%. In determining the amount of credit, banks typically will see first if the funds already collected have been channeled to the maximum or even have not been channeled. When the number of high proficiency level of third party funds, then the bank will be extending credit. In Islamic banking, FDR ratio being the size of it. This means that the higher the ratio of FDR that exist in Islamic banking, Islamic banking, the ability to discharge high and increasing financing are also included in the property finance portfolio. This argument is the same as the results of research conducted by Dwianingrum (2015) which provides information that the number of credit mortgages from banks is observed more into account the changes that occur in the variable DPK and LDR while other variables such as NPL, CAR, ROA, ROA and BI rate underestimated.

CONCLUSION

Referring to the results of research by the method of Vector Error Correction Model (VECM) and the discussions that have been described in discussion of the obtained several conclusions as follows. Firstly, FTV relaxing its negative impact on the increase in property finance and BI rate as macroeconomic variables have a negative influence. Secondly, Inflation, IPI and FDR a positive impact on property finance. Thirdly, FTV rexing policy in 2015 has not been effective in improving the property financing. This policy is only able to make property financing does not decline it. Meanwhile, other variables, namely macroeconomic and internal bank also affect the financing of the property so that the property finance portfolio, Islamic banking can not be ruled out. Policymakers are expected to consider a lot of things, especially the economic conditions at the time of going to release a policy, so the prediction effectiveness of the implementation of a policy can be implemented properly. The variables studied also should be added, especially Islamic banking internal variables, so the results obtained can be more thorough.

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