





Received: 5 Maret 2020

Accepted: 9 Mei 2020

Published: 18 Juni 2020

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Financial Ratio to Financing in Indonesia Islamic Rural BankAnalysis

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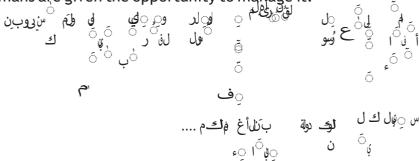
Abstract

The purpose of this study is to analyze factors which influence financing in Indonesia Islamic Rural Bank. The data used are monthly financial report of Islamic Rural Bank (IRB) from 2014 to 2018. This study is using Vector Error Correction Model (VECM) to find the short and long term impacts and respons to the shock impact in each variable to financing. The results respresent that CAR, FDR, BOPO and DPK variables have a significant positive effect on financing in short term. Subsequently in the long term, CAR and NPF variables have a significant positive effect on financing. Meanwhile FDR and DPK variables have a significant negative effect on financing and the ROA variable has no significant effect on financing. Then, the financing response to shocks that occur in ROA, FDR and DPK is negative. While the financing response to shocks that occur in CAR is negative.

Keywords: Financing, ROA, CAR, NPF, FDR, BOPO, DPK, VECM.

Introducing

Financing is the main business of financial institutions particularly banking institute that still dominate the market in the business of collecting and channeling funds. Banks as intermediary institutions play an important role in the real sector as the driving wheel of economy between creditur and debitur. Allah SWT said in Q.S. Al-Hasyr: 7 that property is not traded among rich people only. The purpose of this verse is the existence of a social relationship between humans, because true wealth is a deposit from God and humans are given the opportunity to manage it.



 $\label{lem:artinya: "And what Allah restored to His Messenger from the people of the towns-it is for Allah and for the Messenger and for (his) near$





relatives and orphans and the (stranded) traveler—so that it will not be a perpetual distribution among the rich from among you "

Based on Law No. 21 of 2008 concerning Sharia Banking, it is said that a Sharia Bank is a Bank that runs its business activities based on Sharia Principles and by type consists of Islamic Bank and Islamic Rural Bank (IRB). The purpose of establishing IRB is to serve small entrepreneurs in rural and suburban areas which are generally not affordable by commercial banks. (Hosen & Muhari, 2019).

Infinancing management, bank managers must understand what needs to be done in operational efficiency, which channel financing in a proper and appropriate portion. If something goes wrong in channeling the financing it will have an impact on its financial performance. Many theories have illustrated how to produce good banking performance. But in some cases, the theories are not in accordance with the reality caused by internal factors such as management negligence and external factors such as inflation and crisis.

This situation can be seen from the graph trend below, where assets have decreased while financing disbursed has increased. This phenomenon is in contradiction with a known theory in which the more assets are added, then the financing distributed will be greater.

Chart 1

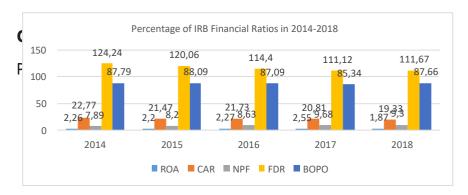
Percentage of Growth in Total Assets and IRB Financing in 20142018



Source: Financial Services Authority (proccessed)

It can be seen from the graph that occur an increase in assets on average every year, but in 2018 decreased growth compared to the previous year of 3.21%. Then the financing had always experienced growth, although not significant until 2018 which is 14.53%.





Source: Financial Services Authority (proccessed)

Based on the SRB financial ratios above, the ROA, CAR and FDR ratios always decrease. Likewise, the NPF ratio is getting higher. The BOPO ratio in 2015 increased to 88.09% and decreased by 85.34% until 2017. However, it rose again at the end of 2018, although it was not significant, at 87.66%. Overall, the IRB's financial ratios represent poor performance. Does this financial ratio have a simultaneous and partial effect on financing?

This study was conducted because of the inconsistency of the results of previous studies because it was due to differences in time use and differences in research subjects taken, such as the ROA variable according to (Bakti, 2018) when using the F test and T test, ROA has a significant positive effect on the financing of commercial banks. In Sharia law, research has also been carried out by Adzimatinur, Hartoyo, & Wiliasih (2015) which states that ROA has no effect on financing.

Therefore, it is very important to understand the situation and find the right solutions for the long journey of the company in the future. Especially for IRB as one of the main players of financial institutions that contributes to the community, especially the Micro, Small and Medium Enterprises (MSME). When the funding provided to MSMEs is efficient, it will have a positive impact on economic growth by increasing community income, increasing consumption and production, which in turn will lower the unemployment rate, resulting in poverty reduction.

Literatur Rewiew

Return on Asset (ROA)

Return on Total Assets or better known as Return on Investment (ROI) is a ratio that represents results (return) on the amount



of assets used in the business. This ratio is also a measure of the effectiveness of management in managing its investments. The smaller (lower) this ratio, the less good and vice versa (Kasmir, 2014: 202). Understanding Return on Assets (ROA) according to Rivai is the company's ability to use its assets to make a profit. This ratio measures a company's return on investment by using all of its funds (assets). This ratio is comparable to the prevailing bank interest rates. (Kurniasari, 2017). In research (Bakti, 2017), using the F-test and the t-test, ROA has a significant positive effect on the financing of the Islamic Commercial Bank. This study is supported by the results of the study (Pujiana, 2019). This shows that partly the TPF, NPF and ROA variables are not significantly positive with regard to funding.

H1: ROA has a significant effect on financing

2. Capital Adequacy Ratio (CAR)

According to Wardiah, CAR is the ratio of the adequacy of bank capital to the ability of banks in existing capital to cover possible losses in credit or securities trading. Meanwhile, according to Pandia, banks that are already active are required to maintain a Solvency Ratio or Capital Adequacy Ratio based on the Bank for International Settlements (BIS) provisions, which is 8% (eight percent) of Risk Weighted Assets (RWA). (Kurniasari, 2017). In research (Bakti, 2017), the value of the CAR coefficient is positive, indicating that the more the CAR increases, the more funding increases. The results of the study are in accordance with Maharani's research (2010) which states that CAR has a positive and significant effect on the distribution of funding and rejects the results of research by Olokoyo (2011) stating that the liquidity ratio has no effect on lending. But this is refuted by research by (Nuriyah, Endri, & Yasid, 2018) that shows that CAR has a negative and significant impact on MSME financing in the short and long term.

H2: CAR has a significant effect on financing

3. Non Performing Financing (NPF)

NPF (Non Performing Financing) is a problem financing channeled by banks to the recipients of financing that is classified as substandard, questionable and loss. The NPF ratio shows the performance of Islamic banking in managing the risk of financing undertaken. The higher the NPF ratio, the higher the amount of



bad loans disbursed or the bank's financial management is poor. Conversely, the lower the NPF ratio, the better the bank's financial management performance. (Munir, 2018). Under investigation (Jumono & Sugiyanto, 2014) Conventional Commercial Bank NPLs have a positive effect on credit development in Indonesia in the short term.

H3: NPF has a significant effect on financing

4. Financing to Deposit Ratio (FDR)

Financing to Deposit Ratio (FDR) is the ratio of the total funding channeled to funding customers divided by the amount of public funds collected (Darmawi 2011). FDR is one of the ratios to measure liquidity and Islamic banking mediation. Liquidity is a term used to denote the cash of other asset funds that can be easily converted into cash. According to Dendawijaya (2005), FDR indicates to what extent the provision of financing to financing customers can offset the bank's obligation to directly meet the demand of depositors who want to withdraw the money used by banks to provide financing. The higher FDR ratio indicates the lower capital of the bank's liquidity. (Syamani, 2018). In research (Siagian, Budiman, & Kismawadi, 2017), the long-term ratio of FDR BPRS has a significant positive effect on murabaha financing.

H4: FDR has a significant effect on financing

5. Operating Expenses Operating Income (OEOI)

The ratio between operating costs and operating income (OEOI) is a ratio used to measure the ability of bank management to use operating income to cover the operating costs of the bank. As the BOPO rises, operating costs will increase relative to banking income, thereby diminishing the bank's ability to optimize its earnings. (Yundi, 2018). In research (Nuriyah, Endri, & Yasid, 2018), the ratio of Islamic banks' BOPO ratios has a significant positive effect on MSME financing in the short and long term.

H5: OEOI has a significant effect on financing

Third Party Funds (TPF)

Third Party Funds (TPF) are funds that are deposited with banks by the public in the form of directly callable money, savings and term deposits (Bank Indonesia, 2006). On the other hand, DPK is a source



of resources to be channeled into financing activities, placements with other banks and others. In research (Nuriyah, Endri, & Yasid, 2018), DPK has a significant positive effect on the financing of MSME at Sharia Commercial Banks in the long term.

H6: TPF has a significant effect on financing

7. Financing

Financing is one of the main activities of banks in channeling funds. Financing is the provision of money or accounts on the basis of an agreement or agreement between the bank and other parties that is funded to return the money or accounts after a certain period in exchange or profit sharing (Muhammad, 2005). (Siagian, Budiman, & Kismawadi, 2017). There are three types of financing in Islamic banking, namely profit-sharing financing (mudharabah and musyarakah), buying and selling financing (murabahah, salam and istishna'), service financing (ijarah).

Zulkhibri (2018) suggests that bank-specific characteristics are important in determining Islamic financing behaviour. The Islamic financing behaviour is consistent with conventional lending behaviour that the Islamic bank financing operates depending on the level of bank size, liquidity and capital. Finncing is very important, one of aspect that give effect on financing is financial ratio (Borhan et al. 2014; Ismal, 2010). Borhan et al. (2014) measure the financial ratio with several ratios those are current ratio (CR) and quick ratio (QR) represent the liquidity ratios, debt ratio (DR) and debt equity ratio (DTER) represent the leverage ratios, while operating profit margin (OPM) and net profit margin (NPM) represent the profitability ratios.

Ismal (2010) state that equity and debt-based financing produce sustainable returns of bank financing. Moreover, they are also very resilient during unfavorable economic conditions. Second, the performance of service-based financing is very sensitive to the economic conditions. Lastly, VaR computation on the volatility of returns and expected losses of bank financing finds that risk of investment and expected losses are well managed. In other hand, banking regulation (Nastiti and Kasri, 2019) and securitization (Hazli and Ghafar, 2008) also has the big effect on financing. The effectiveness of the temporary stimulus in accelerating Islamic banking financing and preventing the possible negative impacts



of the external crisis provides indications that the regulator could conduct similar policy in the future.

Methods

Data Source

This study uses secondary data obtained from the official website of each relevant agency, the Financial Services Authority (www. ojk.go.id). The data used is a monthly time series from January 2014 to December 2018. Monthly data is used because the data density represents the object under investigation and minimizes the variation of data on each variable. The variables used in this study are Financing (independent variable), ROA, CAR, NPF, FDR, BOPO and DPK (dependent variable).

Analytical Methods

The analytical method used in this study is quantitative using VAR (Vector Auto Regression) or VECM (Vector Error Correction Model) with E-views 10. The VAR or VECM method is used to measure the effect of describe financial ratio and DPK variables at the financing level in BPRS in both the short and long term. The analysis used in the VAR / VECM method is the stationarity test, the optimal lag test, the cointegration test and finally the Impulse Response Function (IRF) test.

Analysis Techniques

The analysis technique used in this study is the Vector Error Correction Model (VECM). VECM is a form of terrestrial VAR. This additional limitation is performed because of the data that is not stationary, but coordinated. VECM is able to see the long-term relationship of endogenous variables, so that they converge in their co-integration relationship, yet allow the existence of short-term dynamics. The VECM model chosen is the best model based on the criteria of good fit the model should have. We hope that this model can describe the actual situation compared to using the VAR in difference model. (Jumono & Sugiyanto, 2014). In this study, almost all data is not stationary at the level, but all data has a cointegration relationship, so the VECM model is used. Before final results are obtained, there are several analyzes to be performed



before testing the VECM, namely by stationary test, optimal lag test, cointegration test and finally the Impulse Response Function (IRF) test.

Definition of Variable Operations

ROA, according to Rivai, is the company's ability to use its assets to make a profit.

CAR is the ratio of the adequacy of bank capital to the ability of banks in existing capital to cover possible losses in credit or securities trading.

NPF is a problem financing channeled by the bank to the recipient of financing classified as substandard, questionable and loss.

FDR is the ratio of total funding channeled to funding customers divided by the amount of public funds collected (Darmawi 2011).

BOPO ratio is a ratio used to measure the ability of bank management to use operating income to cover the operating costs of the bank.

DPK is a source of financing that can be used for financing activities, placements with other banks and others.

Financing is the provision of money or invoices based on an agreement or contract between the bank and other parties that is financed to return the money or receivables after a certain period in exchange or profit sharing.

Results and Discussion

Stationarity test

Stationarity is one of the basic concepts in time series data analysis. Stationarity test is the first step in estimating the VAR model. The aim of the stationarity test is that the resulting regression estimates do not include the phenomenon of nonsense regression (spurious regression). How to test the stationarity of data using a formal test called the Unit Root Test. In this study, the test method uses the Augmented Dickey-Fuller (ADF) test with the interception model. This test is performed at level and first difference level. The stationary ADF test of each variable can be shown in Table 1 as follows:



Table 1
Unit Root Root Test Results at Level

		Level - I (0)		
Variabel	ADF t-Statistic	Mc Kinnon Critical Value 5%	Prob	Keterangan
Pembiayaan	5.161387	-2.919952	1.0000	Tidak Stasioner
ROA	-3.044666	-2.911730	0.0365	Stasioner
CAR	-2.653960	-2.911730	0.0883	Tidak Stasioner
NPF	-2.468997	-2.911730	0.1281	Tidak Stasioner
FDR	-0.020999	-2.922449	0.9518	Tidak Stasioner
ВОРО	-1.751976	-2.912631	0.4003	Tidak Stasioner
DPK	2.598764	-2.917650	1.0000	Tidak Stasioner

If the ADF-t statistic number is less than the Mc Kinnon critical value of 5% (used in this study, 0.05), H0 is accepted and H1 is rejected. That is, there is not enough evidence to reject the hypothesis that the equation contains unit roots, meaning that the data is not stationary. This happened with the financing variables (5.161387 <-2.919952), CAR (-2.653960 <-2.911730), NPF (-2.468997 <-2.911730), FDR (-0.020999 <-2.922449), BOPO (-1.751976 <-2.912631) and DPK (-0.920999) and -049.92-22 2.598764 <-2.917650). And from the table above, there is only one variable, namely ROA (-3.044666> -2.911730) with stationary data where the ADF-t statistic number is greater than the Mc Kinnon Critical Value of 5% (used in this study 0.05), which means H0 is rejected and H1 is accepted.

Since the stationarity test using the ADF test shows that the data of all variables used are not stationary at the level, this can be done by differentiating data by decreasing the data by the previous period. Based on the above data, there are six variables (Financing, CAR, NPF, FDR, BOPO and DPK) that are not stationary at the ADF test level of the interception model at the solution level, and then the solution is to differentiate data on the first difference level. The initial difference level ADF test results may be presented in Table 2 as follows:

Tabel 2
Unit Root RootTest Results at first Difference

		First Difference - I (1)	7	
Variabel	ADF t-Statistic	Mc Kinnon Critical Value 5%	Prob	Keterangan
Pembiayaan ROA	-4.899406 -10.25989	-2.912631 -2.912631	0.0002 0.0000	Stasioner Stasioner



CAR	-7.553123	-2.912631	0.0000	Stasioner	
NPF	-8.247056	-2.912631	0.0000	Stasioner	
FDR	-7.424573	-2.922449	0.0000	Stasioner	
BOPO	-11.20022	-2.912631	0.0000	Stasioner	
DPK	-5.783541	-2.913549	0.0000	Stasioner	

It can be seen from test data above, all variables meet the requirements of the ADF test data stationarity, where the ADF-t statistical value is greater than the Mc Kinnon critical value of 5% than the first difference level. Therefore, all data variables (Financing -4.899406> -2.912631, -10.25989 ROA> -2.912631, -7.553123 CAR> -2.912631, -8.247056 NPF> -2.912631, -7.424573 FDR> -2.922449, -11.20022 BOPO> -2.912631, DPK -5.783541> -2.913549) is stationary at the first difference level, so the next step in VECM estimation can be performed, namely the determining the optimal lag length.

Lag Optimum

Determination of lag is one of the things that determine in the stationarity test. If the determined delay is too small, the regression residues will not reflect the white noise process, so the model cannot accurately estimate the actual error. As a result, and the standard error is not properly estimated if too much delay is inserted, this will have an impact on decreasing the ability to reject H0 because too many additional parameters will decrease degrees of freedom (Gujarati, 2011).

Determination of the optimal lag can be determined by determining the lag value that can be obtained from the criteria of the LR model (squential modified LR test statistic), FPE (Final Prediction Error), AIC (Akaike Information Criterian), SC (Schwarz Information Criterion), HQ (Hannan-Quinn Information Criterion). Testing the optimal lag length is very useful to eliminate the autocorrelation problem in the VAR estimate, so that it is hoped that using the optimal lag will make the autocorrelation problem no longer appear. When testing the selection of lag based on these criteria, a candidate is delayed on any criterion that refers to the optimal lag. In Eviews 10, the smallest AIC and SC values are given an asterisk.



Tabel 3
Lag LenghtTest

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1894.625	NA	7.38e+20	67.91520	68.16836	68.01335
1	-1569.427	557.4835	3.89e+16*	58.05096	60.07631*	58.83618*
2	-1520.388	71.80741	4.21e+16	58.04956	61.84709	59.52185
3	-1464.439	67.93805*	4.08e+16	57.80138	63.37110	59.96075
4	-1402.773	59.46285	4.14e+16	57.34905*	64.69095	60.19549

Table 3 above shows that the optimal lag length lies in the first lay. These lection of lag 1 as the optimal lag is based on eviews that the highest number of stars is in lag 1. Because, because the optimal lag length has been found, further testing can be performed, namely the cointegration test (Johansen's Cointegration Test).

Cointegration Test

Co-integration testing is the third step in the VECM estimation test. This test is used to determine the existence of long-term relationships of each variable. The requirement for estimating VECM is a co-integration relationship. If there is no co-integration relationship, the estimate used is the VAR (Vector Auto Regression) model instead of the VECM. The criteria for this phase of the test are to compare the value of trace statistics with a critical value of 5%. If the statistical value of the trace is greater than the critical value of 5%, this indicates the co-integration between variables. In this study, the co-integration test used was the Johansen co-integration test with a critical value of 0.05 available in eviews software. The results of the cointegration test are shown in Table 4 as follows:

Tabel 4
Co-integrationTest Results (Johansen's CointegrationTest)

Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.750740	205.7748	125.6154	0.0000
At most 1 *	0.558991	129.3656	95.75366	0.0000
At most 2 *	0.509015	84.33768	69.81889	0.0023
At most 3	0.279515	45.21391	47.85613	0.0867
At most 4	0.257278	27.18321	29.79707	0.0972
At most 5	0.174066	10.82435	15.49471	0.2225
At most 6	0.005551	0.306133	3.841466	0.5801



Trace test indicates 5 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

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

Source: Eviews 10 (proccessed)

From Table 5 above, it can be explained that in the 5% (0.05) test level, there are three rank variables related to co-integration. This is evidenced by the Trace Statistic value of 84.33768 which is greater than the Critival Value of 0.05, which is 69.81889, which means that H0 is rejected and H1 is accepted. This means that the variables used have a long-term relationship (co-integration) with each other. Therefore, the Granger Causality test can be performed.

Granger Causality Test

This test is used to compare the forecast ability of a change of a time series in the previous period to another variable of a time series in the current period. The H0 tested revealed no causality between the variables, while H1 revealed a causal relationship between the variables. To reject or accept H0, one can see the probability value compared to the confidence level. This study uses a critical value of 5%. If the probability value is less than 5%, H0 is rejected, meaning there is a causality relationship with the variables tested. (Gujarati, 2004).

Tabel 5
Granger Causality Test

Null Hypothesis:	Obs	F-Statistic	Prob.
ROA does not Granger Cause PEMBIAYAAN PEMBIAYAAN does not Granger Cause ROA	56	0.29368 0.46316	0.8806 0.7624
CAR does not Granger Cause PEMBIAYAAN PEMBIAYAAN does not Granger Cause CAR	56	5.00011 3.69137	0.0019 0.0108
NPF does not Granger Cause PEMBIAYAAN PEMBIAYAAN does not Granger Cause NPF	56	3.43021 3.10985	0.0153 0.0238
FDR does not Granger Cause PEMBIAYAAN PEMBIAYAAN does not Granger Cause FDR	56	5.32915 5.08733	0.0013 0.0017
BOPO does not Granger Cause PEMBIAYAAN PEMBIAYAAN does not Granger Cause BOPO	56	0.75834 0.50220	0.5576 0.7342
DPK does not Granger Cause PEMBIAYAAN PEMBIAYAAN does not Granger Cause DPK	56	6.68753 6.01110	0.0002 0.0005

Source: Eviews 10 (proccessed)



Based on Table 5, the probability values 0.0019, 0.0108, 0.0153, 0.0238, 0.0013, 0.0017, 0.0002, 0.0005 are less than 0.05, so in this study, the granger casualness on the CAR affected by Funding, Funding is affected by CAR, NPF is affected by Funding, Funding is affected by NPF, FDR is affected by Funding, Funding is affected by FDR, DPK is affected by Funding, Funding is affected by DPK. If the probability value is greater than 0.05, there are no variables. The next required test is the Vector Error Correction Model (VECM).

VECM Estimate

The technique for correcting short-term imbalances versus long-term equilibrium is called the Vector Error Correction Model (VECM) (Nahrowi, 2006). VECM is a form of derived Vector Autoregression. This additional limitation should be given because data forms exist that are not stationary but joint. VECM then uses the information on limiting the joint integration in the model specifications. Therefore, VECM is often referred to as the VAR design for non-stationary series with a co-integration relationship.

After performing a series of pre-estimation stages, namely the data station test, lag length determination, cointegration test and VECM stability, the model used is the VECM (Vector Error Correction Model). The use of VECM estimation is consistent with the problem formulation in this study, which is to identify the short-term relationship and the long-term effect of the independent variable on the dependent variable. The results of the short-term VECM estimate can be presented in Table 6 as follows:

Tabel 6
Short-term VECM (Vector Error Correction Model) Estimation
Results

Variable	Coefficient	t-Partial Statistics
CointEq1	0.038068	0.42485
D(PEMBIAYAAN(-1))	0.606740	[2.11471]
D(PEMBIAYAAN(-2))	-0.140733	[-0.53535]
D(PEMBIAYAAN(-3))	-0.577320	[-2.33100]
D(PEMBIAYAAN(-4))	0.296235	[0.98871]
D(ROA(-1))	-29057.86	[-0.39349]
D(ROA(-2))	-79772.96	[-1.05967]
D(ROA(-3))	-25076.33	[-0.36697]
D(ROA(-4))	40718.15	[0.63362]
D(CAR(-1))	2154.318	[0.09970]
D(CAR(-2))	-10550.20	[-0.47399]



D(CAR(-3))	7378.994	[0.36758]
D(CAR(-4))	55713.10	[3.22269]
D(NPF(-1))	29278.79	[1.66178]
D(NPF(-2))	-18167.51	[-0.96771]
D(NPF(-3))	-12578.28	[-0.60605]
D(NPF(-4))	-1055.773	[-0.05476]
D(FDR(-1))	-10643.70	[-1.10173]
D(FDR(-2))	4665.476	[0.49909]
D(FDR(-3))	23886.54	[2.44559]
D(FDR(-4))	1737.338	[0.18304]
D(BOPO(-1))	-2672.462	[-0.38519]
D(BOPO(-2))	-1037.232	[-0.11977]
D(BOPO(-3))	18320.89	[2.09138]
D(BOPO(-4))	1600.310	[0.20274]
D(DPK(-1))	-0.124566	[-0.48001]
D(DPK(-2))	-0.064895	[-0.24673]
D(DPK(-3))	0.715684	[2.84243]
D(DPK(-4))	0.212368	[0.95992]

Table 6 shows that in the short term (one year according to the type of data used, ie monthly edition data in the period 2014-2018). In this study, the degree of freedom (df) is 55 with a two-way t test table in the test level of 5%, so the t table is 2.00404. When t-count (partial t-statistics)> t-table, H0 is rejected. The short-term estimate of the VECM model shows that variable financing arrears (-1), financing arrears (-3), CAR arrears (-4), FDR arrears (-3), BOPO arrears (-3) and DPK backlog (-3). Then, the long-term VECM estimation results are presented in Table 7 as follows:

Tabel 7
Long-term VECM (Vector Error Correction Model) Estimation
Results

Variabel	Koefesien	t-Statistik Parsial
ROA	-7275.256	[-0.05182]
CAR	166503.8	[5.04641]
NPF	92534.69	[2.10342]
FDR	-90089.68	[-10.4884]
ВОРО	19536.48	[1.44417]
DPK	-1.216391	[-17.3035]

Source: Eviews 10 (proccessed)

Judging from the long-term VECM estimation table above, it can be seen that the CAR, NPF, FDR and DPK variables have a t-count>



ttable, meaning that the variable X has a significant effect on the Y variable. On the other hand, the ROA variable has a t-count value <t-table which means that H0 is accepted. After estimating VECM, further testing is needed, namely the Impulse Response Function (IRF) test.

Impulse Response Function (IRF) Test

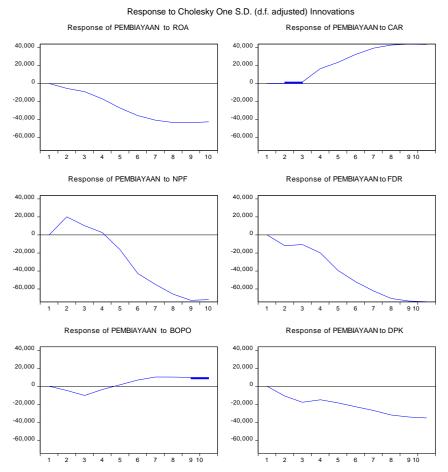
The coefficient on the VECM equation is difficult to interpret, so the impulse response is used to interpret the VECM model equation. The impulse response function describes the shock speed from one variable to another at a given time frame, so that the length of the impact of a shock from one variable to another variable can be seen until the effect disappears or returns to the equilibrium point.

It can be viewed from Graph 3, the Impulse Response Function (IRF) test shows that changes in ROA on Financing 1-10 months responded negatively. This is indicated from the IRF line which is above the horizontal line until the last period. This also applies to the FDR and DPK variables. The CAR variable is inversely proportional to the ROA variable, with the CAR variable responding positively to 1-10 months funding. This is reflected from the IRF line which tends to rise above the horizontal line up to the tenth period.

Unlike the previous variables, the NPF variable responded positively to Funding from months 1-4, which subsequently responded negatively in the fifth month to the previous month. And the last variable shows that the change in BOPO that is answered on Financing gets a negative answer from the first month to the middle of the fourth and fifth months. Then a positive response to the tenth month with a value of 8247. This is indicated from the IRF line that tends to rise above the horizontal in the middle of the fourth and fifth months.



Grafik 3 Hasil Analisis IRF terhadap Shock Kurs



Source: Eviews 10 (proccessed)

Discussion

Based on the results of the above investigation, it was indicated that H1 was rejected, namely that ROA had no effect on financing. This statement is supported by research (Nasution & Ulum, 2015) and (Adzimatinur, Hartoyo, & Wiliasih, 2016). ROA illustrates the level of bank profitability, namely the way in which banks make a profit by relying on all assets. When ROA does not affect funding, banks' profits or profits are not channeled to finance, but distributed for profit sharing to fund owners (non-bank third parties, Indonesian banks and other banks) and operating expenses (bonus deposits of wadiah, administrative fees and general and personnel costs). That is why the distributed fund comes from Third Party Funds (DPK). Based on ROA impulse response results, financing negative responded, meaning ROA is not stable, so it experiences long-term shocks.



Then H2 is accepted, ie the long and short term CAR variable has a significant positive effect on financing. CAR is a ratio that illustrates how Islamic banking can absorb the risk of banklosses. This ratio also illustrates the condition of capital adequacy in banking. Capital in banking positions to meet needs and bear risks, including financing risks. In addition, the higher the capital of a bank, the more funding can be channeled through the bank. (Syamani, 2018). From the VECM estimate study, the CAR variable has a coefficient value of 166503.8, which means that if there is a 1% increase, funding will increase by 166503.8. This is also supported by research (Syamani, 2018) and (Sudarsono, 2017). The IRF results show that the CAR variable is generally stable over the long term, as shown by the positive response to the tenth month of the financing variable.

The short-term NPF variable has no effect on financing. However, the NPF variable has a significant positive effect on financing, which means that H3 is accepted. This study differs from previous studies by (Giannini, 2013), (Sudarsono, 2017) and (Zaenuri, 2014). This research also rejects the theory that when the NPF ratio is high, it will reduce the funding amount, meaning it has a significant negative impact on funding. The results of this study showed that the NPF ratio will increase in the future, along with the increase in the funding amount as more and more customers are unable to meet their obligations, while more and more customers are also interested in proposing financing to the BPRS to meet their needs. In the NPF results, IRF has fluctuations in dealing with shocks to long-term financing.

In addition, H4 is accepted, as shown by a significant positive effect in the short term and a significant negative effect in the long term. Based on the trend of the BPRS FDR ratio in 2014-2018, it declined significantly from 124.24% to 111.67%. The standard FDR ratio with the BPRS is 75%. So that the FDR ratio will improve in the short term if it decreases. But in the long run, this will negatively affect liquidity. Therefore, as funding increases, the funding source should also be maximized to maintain BPRS liquidity. Likewise, when there are many sources of funding, efforts to channel funding are also maximized.

The short-term BOPO ratio has a significant positive effect on financing. But no significant effect in the long term. This is supported by research (Adzimatinur, Hartoyo, & Wiliasih, 2016).



In the short term, it is necessary to increase the BOPO ratio by increasing income, one of which is by suppressing the NPF ratio. This is confirmed in research (Nasution & Ulum, 2015). In this study, it was stated that H5 was rejected.

The last variable is DPK, which has a significant positive effect on financing in the short term. This is in contrast to the long term, which has a significant negative effect on financing. This meant that H5 was accepted. This research is not in line with Syafi'l Antonio's theory, which states that deposits are one of the sources of funding. The rise of DPK, which subsequently affects the financing part. The more DPK in the form of savings, deposits and checking accounts collected from the public by Islamic banks may not necessarily be able to increase the portion of the funding. In this study, DPK has a significant negative effect on financing. DPK increased, but the allocation of distributed funding decreased. This is because the DPK has a short-term system while MSME financing is long-term. Therefore, DPK cannot be used for long-term financing activities. (Meidawati, 2018).

Conclusion

Based on the research done, it can be concluded as follows:

The results showed that in the short term the only significant variables were CAR, FDR, BOPO and DPK. The long-term relationship of CAR and NPF has a positive effect, while FDR and DPK have a significant negative effect on financing.

Results show shocks that occur with financing. CAR and BOPO responded positively through funding and will remain stable in the long term. Shocks that occur in other variables such as ROA, NPF, FDR and DPK are answered negatively by financing and will remain stable in the long term.

The results of this study illustrate that in some cases the theory and application are not consistent. Bank management must therefore pay attention to financial performance and external factors that can influence the level of financing, so that channelized financing is more efficient. The following researcher can use macroeconomic variables related to the level of funding channeled through the SRB using different analysis methods and data types..



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