THE ANALYSIS OF FACTORS AFFECTING PROFIT SHARING FINANCING ON ISLAMIC BANKING IN INDONESIA

(Case Study of Islamic Commercial Banks and Islamic Business Unit in Indonesia, Period of 2011-2016)

ANALISIS FAKTOR-FAKTOR YANG MEMPENGARUHI PEMBIAYAAN BAGI HASIL PADA BANK SYARIAH DI INDONESIA

(Studi Kasus pada Bank Umum SyariaH dan Unit Usaha Syariah di Indonesia, Periode 2011-2016)



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ABSTRACT

The objective of this study is to determine the relationship between Profit Sharing Financing on Islamic Banking in Indonesiaand the internal and external factors of Islamic Bank. The internal factors in this study are Return on Asset (ROA) and Capital Adequacy Ratio (CAR) and the external factor is Islamic Certificate of Bank Indonesia (SBIS) and Inflation. The methodology used in this study to find the short-run and long-run relationship among those variables was Vector Error Correction Model (VECM). This study used monthly data within period of December 2011-November 2016. It found thatall independent variables influenced PSF significant in short-run correlation except ROA. In long-run correlation, all independent variables influenced PSF significant.

Keyword: Profit Sharing Financing, Capital Adequacy Ratio (CAR), Return on Asset (ROA), Inflation, Sharia Certificate of Bank Indonesia (SBIS)

A. Background

Islamic banking as a part of the banking industry has an obligation to distribute financing to the real sector through financing of profit sharing. Based on the data from Bank Indonesia, the realization of profit sharing financing in Islamic banking shows that the composition of the profit sharing financing is still far lower than the financing using murabaha system that utilizes mark up. This condition indicates that every year the distribution of profit sharing financing is still lower than the portion of murabaha financing.

There are many fatcors that can affect the distribution of Islamic bank fianncing from internal and external factors. From the internal factors, there are Capital Adequacy Ratio (CAR) and Return on Asset (ROA). If CAR of a the bank is high, it will cause the profit of a bank increasing and this huge profit contributes to financing will be increasing. As the research conducted by Novianti (2013) stated that the CAR has positive influence on the profit sharing and research financing from Qolby (2013) shows that ROA has positive effect to the financing of Islamic banks.

The external factors which could affect the financing of Islamic banks is Sharia Certificate of Bank Indonesia (SBIS) and inflation. SBIS are securities based on the Islamic principles in a short term using Rupiah currency issued by Bank Indonesia. If the number of SBIS declining, thus excessive funds are not stored in the form of SBIS but it used in the distribution of financing, so it can increase the amount of financing provided. As the research conducted by Wiyati

(2012) stated that Islamic Certificate of Bank Indonesia variables affect significantly the financing of Islamic bank.

The other external factor that might affects the financing is inflation. If it is high, goods and services will be high so it will cause the consumption lower with an assumption the income is constant. In order to fulfill the needs, the community will find an alternative financing. One of the financing in real sector conducted by the government is known as the term of financing by general Islamic bank to community. As the research conducted by Katmas (2014) stated the inflation affects significant positive to the financing of Islamic bank. Thus, there are several opportunities, including SBIS and inflation that affects the financing of Islamic bank.

B. Research Questions

The problems that will be answered in this research as follows:

- 1. How the influence of Capital Adequacy Ratio (CAR) to profit sharing financing?
- 2. How the influence of Return on Asset (ROA) to profit sharing financing?
- 3. How the influence of Sharia Certificate of Bank Indonesia (SBIS) to profit sharing financing?
- 4. How the influence of inflation to profit sharing financing?

C. Method of Analysis

The analysis methods used in this research are cointegration test and Vector Error Correction Model (VECM). This method used to see the relationship

among variables; Financing on agricultural sector (FAS), inflation (INF), Non-Performing Financing on agricultural sector (NPFAS), Depositors Fund (DEPF), Capital Adequacy Ratio (CAR), and Return on Asset (ROA). The relationship that will be analyzed is short term and long term relationship among variables. The data and the model in this research are in natural logarithm form, so that the estimation result can show the elasticity of the unit that stated in percentage. Therefore, the relationship among variables can show more rational results.

VECM is a derivative method of VAR (Vector Auto Regression). The assumption needed in VECM method is basically similar, unless the stationary problems. On the contrary with VAR, VECM must be stationed at the first difference level, as well as with all variables, they must be stationed at the first difference level (Basuki and Yuliadi, 2015).

To decide which model we should use to analyze the data on this research, there will be some procedures to be followed, such as: Stationary Data Test, Lag-Length Criteria Test, VAR Model Stability Test, Granger Causality Analysis, Cointegration Test, VECM Empirical Model, Impulse Response Function Analysis, and Variance Decomposition Analysis. The further explanation will be shown as follow:

1. **Stationary Data Test**. Generally, time series economics data is stochastic. When the data is stochastic, it means the data has unit root. If the data has unit root in it, the data will fluctuate not in its average value, which further makes

- it hard to estimate the model (Rusydiana, 2009). Nowadays, Unit Root Test is one of a popular concept to test the stationary of time series data. This test is developed by David Dickey and Wayne Fuller; by using Augmented Dickey-Fuller (ADF) Test. The stationary data test that will be used in this research is ADF Test by using alpha 5%.
- 2. Lag-Length Criteria Test. Estimation of VAR is very sensitive on the laglength used in the model. The lag-length used in the model can be decided with the criteria of Akaike Information Criterion (AIC), Schwarz Information Criterion (SC), or Hannan Quinon (HQ). Besides that, the Lag-Length Criteria Test can be very useful when it comes to autocorrelation in VAR system. So by using Lag-Length Criteria Test, there will be no more autocorrelation problem (Nugroho, 2009).
- 3. VAR Model Stability Test. The test in VAR Stability must be conducted before we continue to a deeper analysis. Because if the estimation result of VAR which is combined with the correction model is not stable, the Impulse Response Function and Variance Decomposition will be invalid (Setiawan, 2007). VAR Model Stability Test can be conducted by measuring the roots of polynomial function or as known as roots of characteristic of polynomial (Johnston and Dinardo, 1997).
- 4. **Granger Causality Analysis**. This test is only become popular within the last few years in neuroscience. The purpose of this test is to know if the

endogenous variable can be treated as the exogenous variable (Basuki and Yuliadi, 2015). According to Granger causality, if a signal X1 "Granger-causes" a signal X2, then past values of X1 should contain information that helps predict X2 above and beyond the information contained in past values of X2 alone. Its mathematical formulation is based on linear regression modeling of stochastic processes (Seth, 2007).

- 5. **Cointegration Test**. As stated by Robert Engle and Clive Granger, the existence of non-stationer variable will cause a long term relationship among variables in the system. Cointegration Test conducts to know the relationship among variables, especially in long term relationship. The method that will be used to analyze the cointegration relationship is Johansen Cointegration Test (Basuki and Yuliadi, 2015).
- 6. VECM Empirical Model. The next step—after cointegration test has already conducted—is error correction method. If there is a different in the integration degree among variables tested, the test will be conducted jointly between long-term equation and error correction equation. That difference in the integration degree on the co-integrated variables is called Lee and Granger as multi-cointegration (Hasanah, 2007). Yet, if there is no cointegration, the test will be continued by using first difference variable (Rusydiana, 2009). VECM is basically a restricted VAR model, because the data is not stationer yet co-integrated. The specification of VECM itself is restricting the long term relationship among endogenous variables and changing them to their

cointegration relationship, while keeping the existence of short term relationship.

- 7. Impulse Response Function Analysis. This analysis used to decide what endogenous variable should response on a shock from certain variable. IRF also shows the shock from one variable and how long it could last. Through IRF, a response of independent changes in the amount of one standard deviation can be seen. IRF also explores the impact of interference in the amount of one standard error as an innovation for one endogenous variable to others (Nugroho, 2009).
- 8. Variance Decomposition Analysis. Forecast Error Variance Decomposition (FEVD) elaborates the innovation in one variable on other variables' components in a VAR. The information in FEVD is a series proportion of movement which caused by shock, either it is from its own shock or others' shock (Nugroho, 2009).

D. Research Finding

The findings from the research trespass the aim of research as we find some correlation between those variables, namely, Profit Sharing Financing (PSF), Return on Asset (ROA), Capital Adequacy Ratio (CAR), Sharia Certificate of Bank Indonesia (SBIS), and Inflation (INF). So here a further discussion about the findings of this research and hopefully can reveal the research.

1. VECM Estimation on Long-Term

This research concludes the analysis from VECM estimate. The VECM result in long-term identified that ROA is significant and positive to Profit Sharing Financing (PSF), the research result indentifies that the increased variable of ROA by 1 percent will increase Profit Sharing Financing by 1,053279 percent. These findings in line with the research of Muhammad Luthfi Qolby (2013) and Nur Gilang Giannini (2013) that ROA affect Profit Sharing financing positively. So we can find that ROA has a role to influence Profit Sharing Financing positively and significant. It happened because ROA is the profitability ratio where this ratio shows the ability of management in generating revenue from asset management. It means that if ROA increase then bank profitability will increase. High profitability is a bank opportunity to increase financing.

Variable CAR is significant and positively affects Profit Sharing Financing. The research result defines that increase of CAR by 1 percent will increase Profit Sharing Financing by 0,618472 percent. These findings in line with the Hikmawan (2013) and Nur Gilang Giannini (2013) which conclude in their research that CAR affect positively to Profit Sharing Financing. The effect of capital to financing on Islamic commercial bank because the Islamic banking that operated in that year optimize the existing capital. It happened because regulation of Bank Indonesia that require the minimum of Capital Adequacy Ratio in 8%,

then Islamic commercial banks trying to keep Capital Adequacy Ratio in accordance with the provisions.

Variable SBIS is significant and positively affects Profit Sharing Financing. The research result defines that the increase of SBIS by 1 percent will increase Profit Sharing Financing by 0,723703 percent. These findings in line with the research of Leni Untari (2016) that SBIS affect Profit Sharing Financing positively. It means that when the amount of SBIS increase the total financing will be increased due to excessive fund saved in the form of SBIS, then the fund that will be used for financing will decrease.

Variable Inflation is not significant and positively affects Profit Sharing Financing. The result defines that increase of inflation by 1 percent will increase Profit Sharing Financing 0,239080 percent. These findings in line with the research of Indah Khoirun Nisa (2013) that inflation affect positively but it differs with the research of Muhammad Zakki Fahrudin (2009) that defined the effect of inflation is negative. Inflation has positive effect because inflation shows a stable movement which controllable. It does not affect people's desire to save and invest their money.

2. VECM Estimation in Short-Term

VECM result in short-term identified that ROA in 1st, 2nd, and 3rd lag has negative and not significant impact toward profit sharing financing

with the value respectively, -0,009644, -0,003474, and -0,008952 which means when ROA increase 1 unit it will decrease 0,009644, 0003474 and 0,008952 respectively in short-term. These results are differ with estimation in long-term whereas in long-term ROA has positive and significant impact toward Profit Sharing Financing. But in 4th lag ROA have positive and not significant impact toward profit sharing financing.

The effect of CAR in 1stlag is negative and not significant, but in 2nd, 3rd, and 4th lag it affect positive and significant with the value respectively, -0,004873, 0,002713, 0,002518, and 0,001369 which mean that in 1st lag when CAR increase 1 unit profit sharing financing will decrease 0,004873, but in 2, 3, and 4 lag will increase 0,002713, 00,2518, and 0,001369 respectively. These results are differ with estimation in long-term whereas in long-term CAR has significant impact toward Profit Sharing Financing.

The result of SBIS for short-term in 2 lag is significant and give a negative impact to Profit Sharing Financing. These findings in line with the research of Leni Untari (2016) that SBIS affect Profit Sharing Financing negatively. It means that when the amount of SBIS increase the total financing will be decreased due to excessive fund saved in the form of SBIS, then the fund that will be used for financing will decrease.

The effect of inflation for short-term in 1st and 2nd lag is negative and significant with the value -0,010332 and -0,014871 respectively which

means when inflation increase 1 percent it will decrease Profit Sharing Financing by 0,010332 and 0,014871 percent. These results are differ with estimation in long-term whereas in long-term inflation have not significant impact toward Profit Sharing Financing.

3. Forecasting Variance Decomposition

The summary result of Forecasting Variance Decomposition as the dependent variable for Profit Sharing Financing, it shows that variable inflation is the most shocking variable to influence Profit Sharing Financing, the second one is CAR and the last two are SBIS and ROA. The results show that inflation give 13,8% influence of shock to Profit Sharing Financing and CAR give 2,93% of shock while SBIS give 2,59% and 0,51% influenced by ROA. So government should notice the portion of inflation to maintain the stability of financing as well as give some attention to profit sharing financing carefully to stabilize real sector.

E. Conclusion

Based on the results on this research by conducting Descriptive Statistics, VAR/VECM analysis process; Cointegration Test, Granger Causality Test and VECM. Based on the analysis and the test results on this research, the effects of Return on Asset (ROA), Capital Adequacy Ratio (CAR), Sharia Certificate of Bank Indonesia (SBIS) and Inflation on Profit Sharing Financing, it can be concluded that:

- Return on Asset (ROA) haveinsignificant effect on profitsharing financing in short-run correlation. Menawhile, in long-run correlation ROA have significant and negatively effect on profit sharing financing.
- Capital Adequacy Ratio (CAR) in have significant and negatively effect on Profit Sharing Financing in short-run correlation. Meanwhile, in long-run correlation CAR have significant and positively effect on profit sharing financing.
- 3. Sharia Certificate of Bank Indonesia (SBIS) have significant and negatively effect on Profit Sharing Financing in short-run and long-run correlation.
- 4. Inflation have significant and positively effect on Profit Sharing Financing in short-run correlation. Meanwhile, in long-run correlation inflation have significant and negatively effect on profit sharing financing.

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