

Financial Volume Analysis Based On Profit Sharing Sharia Banking In Indonesia

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ABSTRACT : This study aims to analyze in depth the contribution of Gross Domestic Product (GDP), Third Party Funds (TPF), Profit Sharing Rate (PS), Inflation, Interest Rate (IR), and Total Money Supply (MS) to Volume of profit and loss sharing based financing (VPLSF) Sharia Banking In Indonesia. This research is a quantitative research with Vector Auto Regression (VAR) analysis technique with the aim to see the relation between variables that become the choice in determining Sharia Fund Based Sharia Funding Volume in Indonesia. Using the test should be done so that it will eventually produce long-term and short-term equations through Vector Error Correction Model (VECM) analysis, variable response through Impulse Response Function (IRF) and the role of variable composition through Variance Decomposition (VD). The results of this study show that PS Instrument, IR, Inflation And GDP based on long-term Vector Error Correction Model (VECM) estimation results show a significant effect with high coefficients on VPLSF. PS Instrument, Inflation And GDP based on long-term Vector Error Correction Model (VECM) estimation results show a significant effect with high coefficients on VPLSF. Based on the VECM estimation the significant variables in the short term are GDP influenced by GDP, TPF influenced by MS, PS influenced by MS, Inflation influenced by IR, IR affected by Inflation and IR, whereas MS is not influenced by anything. Instruments based on IRF analysis turn out to be the sequential variables from the lowest to the highest are PS, GDP, IR, Inflation, MS, VPLSF and TPF of Sharia Banking responded by research variables. Instruments based on Variance Decomposition analysis (characteristic model) turned out to be the variable that has the most important composition and the major role responded by the research variables from the lowest to the highest is the PS, GDP, inflation, IR, TPF, VPLSF and the MS responded by the research variables.

Keywords: *Financial Volume Analysis, Profit Sharing, Sharia Banking*

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I. INTRODUCTION

As a financial institution which has function as financial intermediary, Syariah banks collect funds from the society in deposits form third party funds and disburse these funds through financing schemes, either financing using the principles of sale purchase, lease, or profit sharing. Financing based on the profit sharing principle in Fiqh literature and generally channeled by Islamic banking consists of two types, such as *Mudharabah and Musyarakah* financing [1].

The Human need is very unlimited while the tools of need is very limited. One activity which is never separated of fulfillment of this need is a trading. Trading activity is a process of exchanging that requires a tool called money exchange.

By the progress of economic activity which is increasingly widespread and complex, then the financial institution grows and sees the opportunity needs. One of the financial institution is Bank. Generally, the main function of a bank is to carry out the intermediary function of receiving funds from public or organization that owns surplus funds or known as Surplus Spending Units (SPU) and channeling those funds to communities or organizations that needs or known as the Deficit Spending Unit (DSU). By this activity, banks act a role in economic activity, development of a project and even the purpose of prospering the community and the organization. Therefore, in the organization, the bank is closely connected to the support and participation of community and organization itself, the government as regulator and other concerned parties, either individually or jointly.

The development of sharia banking in Indonesia of its growth is quite rapidly, it can be seen from increasing in the number of Islamic banks and their assets, a sharp increase in the last 5 years, from Rp 97.519 trillion in 2010 increased to Rp 272.389 trillion 2015 [2]. Based on sharia banking statistics, June 2015, there are 12 banks of Sharia Commercial Bank (SHB), 2,121 offices and 22 Sharia Business Units (SBU), and 327 offices. In 2008 the number of SHB as 5 banks, 581 offices and SBU 227 Bank, and has 241 offices. This shows the sharia banking is growing rapidly from the growth of the offices each year increases, the Law no. 21 of 2008 on sharia banking encourages an increase in the number of SHB and SBU [3]. This study tries to test the factors of influencing the Islamic bank financing volume, especially the financing based on profit-sharing of *Mudharabah* and *Musyarakah* financing. The purpose of this study is to examine the significance of third party funds (TPF), Profit Sharing (PS) and Non Performing Financing (NPF) on the volume of profit-sharing financing in sharia banking in Indonesia.

II. REVIEW LITERATURE

2.1. Profit Sharing

The Interest of Islamic banks own consequence of absoluting interest abolition. The profit-sharing rate offers something new beside the concept of interest offered by the conventional banks. The rate of Profit sharing is a profit or loss in economic activities as well [4].

Basically the profit-sharing system has the price of capital determined with the role of entrepreneurship. In revenue-sharing agreement is the proportion of profit sharing (profit sharing) in percentage of the probable productivity. The nominal value of the revenue share is known when the funds are actually utilized, the profit sharing ratio is determined jointly between the bank owner and the customer. The amount of profit sharing is adjusted to the contribution of each part after the cooperate transaction [4].

2.2. Profit Sharing Model

2.2.1. Mudharabah Model

The *Mudharaba* model represents because when the cooperation contract one of the parties contributes capital, while the other part contributes entrepreneurship in energy form, mind, and management. The first part is called *Shahib al-maal* (financier) and the second is called *Mudharib* (entrepreneurship) [4]

2.2.2. Musharaka Model

This model represents the contribution of each part in the capital grant. The profit sharing formula is determining by dividing the 50:50 profit and loss sharing and the division according to the minimum contribution of one part is higher than the other side such as 60:40, 70:30, and 55:45. [4]

2.3. Previous research

The research of Pratin and Adnan's shows that TPF variables owns a significant positive relationship towards financing [5]. Fundraising and channeling activities are the main focus of Sharia Bank activities. Therefore, for channeling funds optimally, the bank must own the ability of collecting third party funds because TPF is the main source of Islamic bank financing. According to Antonio [6] and Mohammed [7] one source of funds that can be used for financing is saving (TPF). Thus, the higher third part funds collected is getting higher the volume of financing that can be distributed, including profit-based financing of *Mudharabah* and *Musyarakah* financing.

In the theory, the practice of bank operations as a business entity is profit oriented certainly expect much of profit. Muljono said that the higher profit (profit target) is one of the banks in determining the amount of credit volume to be distributed [8]. Accordance with the level of profit sharing is an important factor in determining the volume of financing based on the profit sharing which is distributed.

The profit-sharing rate becomes an important factor because the type of profit-sharing financing, *Mudharabah* and *musyarakah* are Natural Uncertainty Contracts (NUC), which is easily have the high risks than other types of financing because the returns obtained by banks are uncertain. Therefore, banks will tend to distribute these revenue-share financing if the profit-sharing rate is high means the risk is smaller from the risk that may occur (high risk high return principle).

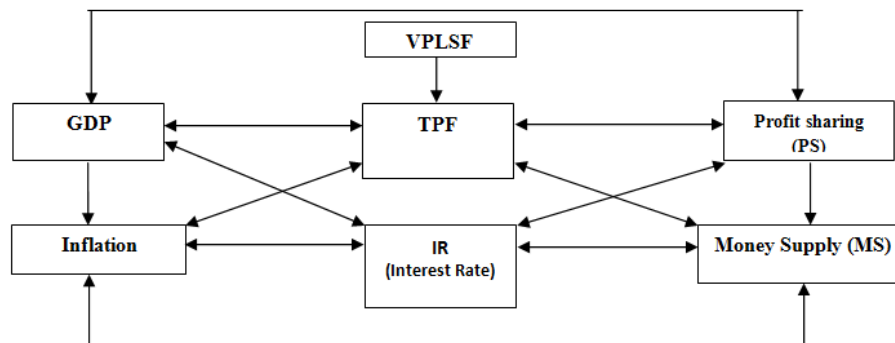
III. FRAMEWORK AND HYPHOTESIS

3.1. Framework

The Testing of simultaneous relationship and the degree of integration in long-term variables affecting inflation uses the VAR method. This test is performed to determine whether there is a simultaneous relationship between GDP, TPF, PS, INFLATION, IR, MS variables as an exogenous variable to VPLSF As an endogenous variable by incorporating a time element (lag).

There are two important issues in Sharia Bank Indonesia, where the market share is still small and growth of VPLSF is unstable. The VPLSF is the urgent for the growth of Sharia Banking.

In the external side, the macroeconomic conditions reflected in the national income, TPF, PS level, Inflation, IR, and MS are expected to influence the VPLSF and as well.



3.2. Research Hypothesis

Based on the problem form, the basis of theory and empirical studies in the previous part, can be conclude as follows:

- 1) VPLSF, GDP, TPF, PS, Inflation, IR, and MONEY SUPPLY (MS) contribute to VPLSF of sharia banking in Indonesia.
- 2) GDP, TPF, PS, Inflation, IR, MS and VPLSF contribute to the GDP of sharia banking in Indonesia.
- 3) TPF, PS, Inflation, IR, MS, VPLSF and GDP contributed to Islamic banking TPF in Indonesia.
- 4) PS, Inflation, IR, MS, VPLSF, GDP and TPF of sharia banking contribute to the PS of sharia banking in Indonesia.
- 5) Inflation, IR, MS, VPLSF, PDB, TPF and PS contribute to sharia banking Inflation in Indonesia.
- 6) IR, MS, VPLSF, GDP, TPF, and Inflation contribute to IR level of sharia banking in Indonesia.
- 7) MS, VPLSF, GDP, TPF, Inflation, and IR contribute to MS of sharia banking in Indonesia

IV. METHODOLOGY

4.1. Data collection, Population, and Sample

This study applies the secondary data by the series data types on January 2005 to December 2016. The data used in this research is taken from several sources, like: Bank Indonesia, Financial Services Authority (OJK) and Bureau of Economic Analysis (BEA).

The population used in this research is Sharia Commercial Bank (SHB) and Sharia Business Unit (SBU). While the sample involves all elements of the population as a source of data (census). Census is a study which is considered to reveal the characteristics of the population (parameters) accurately and comprehensively, because by using the elements of the population as a source of data, the population view as a whole will be obtained.

4.2. Data Variables and Operational Definition

1. Volume of profit and loss sharing based financing (VPLSF) is the Number of Profit Sharing-Based on the Volume collected by Shari'ah Banking in Indonesia of Million Rupiah (monthly).
2. Gross Domestic Product (GDP) is Indonesian Gross Domestic Product of billion Rupiah (monthly) based on current prices.
3. Third Party Funds on Sharia Banking (TPF) is the Number of Third Party Funds collected by Islamic Banking in Indonesia of Million Rupiah (monthly).
4. Profit Sharing (PS) is the profit sharing rate set by Bank Indonesia of percent (monthly)
5. Inflation is Indonesia's inflation rate set by Bank Indonesia in terms of percent (monthly)
6. Interest Rate (IR) will be the reference interest rate determined by Bank Indonesia of percent (monthly)
7. Money Supply (MS) is MS in Indonesia in billion Rupiah (monthly)

4.3. Data Analysis and Equation Research Model

The problems in this study will be analyzed by using Vector Autoregression. Simply, the VAR describes a "causal" (causalistic) relationship between variables in the system, by adding an intercept. This method is developed by Sims in 1980 [9] which assumes that all variables in the model are endogenous (defined in the model) so that this method is called an atoretical model (not based on the theory).

Testing in VAR itself consists of several parts, which include test Stationeritas test, the selection of optimum lag, stability, cointegrasi, Vector Error Correction Model (VECM), and Instrument Vector Autoregression (Instrument include Impulse Response Function (IRF) and Variance Decomposition (VD) .

The equation of model form is constructed to see the influencing of profit-sharing financing volume to Sharia Commercial Bank and sharia business unit in Indonesia, such as:

$$\text{Log (VPLSF)}_t = \text{vplps}[\text{Log VPLSF}_{t-p}, \text{Log (GDP)}_{t-p}, \text{Log (TPF)}_{t-p}, \text{Log (PS)}_{t-p}, \text{Log (INF)}_p, \text{Log (IR)}_{t-p}, \text{Log (MS)}_{t-p}] e_{1,t}$$

$$\text{Log (GDP)}_t = \text{gdp} [\text{Log (GDP)}_{t-p}, \text{Log (TPF)}_{t-p}, \text{Log (PS)}_{t-p}, \text{Log (INFLATION)}_{t-p}, \text{Log (IR)}_{t-p}, \text{Log (MS)}_{t-p}, \text{Log (VPLSF)}_{t-p}] e_{1,t}$$

$$\text{Log (TPF)}_t = \text{tpf} [\text{Log TPF}_{t-p}, \text{Log (PS)}_{t-p}, \text{Log (INFLATION)}_{t-p}, \text{Log (IR)}_{t-p}, \text{Log (MS)}_{t-p}, \text{Log (VPLSF)}_{t-p}, \text{Log (GDP)}_{t-p}] e_{1,t}$$

$$\text{Log (PS)}_t = \text{ps} [\text{Log (PS)}_{t-p}, \text{Log (INFLATION)}_{t-p}, \text{Log (IR)}_{t-p}, \text{Log (MS)}_{t-p}, \text{Log (VPLSF)}_{t-p}, \text{Log (GDP)}_{t-p}, \text{Log (TPF)}_{t-p}] e_{1,t}$$

$$\text{Log (INFLATION)}_t = \text{inflation} [\text{Log (INFLATION)}_{t-p}, \text{Log (IR)}_{t-p}, \text{Log (MS)}_{t-p}, \text{Log (VPLSF)}_{t-p}, \text{Log (GDP)}_{t-p}, \text{Log (TPF)}_{t-p}, \text{Log (PS)}_{t-p}] e_{1,t}$$

$$\text{Log (IR)}_t = \text{ir} [\text{Log (IR)}_{t-p}, \text{Log (MS)}_{t-p}, \text{Log (VPLSF)}_{t-p}, \text{Log (GDP)}_{t-p}, \text{Log (TPF)}_{t-p}, \text{Log (PS)}_{t-p}, \text{Log (INFLATION)}_{t-p}] e_{1,t}$$

$$\text{Log (MS)}_t = \text{ms} [\text{Log (MS)}_{t-p}, \text{Log (VPLSF)}_{t-p}, \text{Log (GDP)}_{t-p}, \text{Log (TPF)}_{t-p}, \text{Log (PS)}_{t-p}, \text{Log (INFLATION)}_{t-p}, \text{Log (IR)}_{t-p}] e_{1,t}$$

By:

VPLSF : Volume of profit and loss sharing based financing (Billion IDR)

GDP : Gross Domestic Product Indonesia (Billion IDR)

TPF : Third Party Funds (Billion IDR)

PS : Profit Sharing (Billion IDR)

INFLATION : Inflation (%)

IR : Interest Rate (%)

MS : Money Supply (Rp. Billion IDR)

e_1-e_5 : Residual (error terms)

p : Lag

t : Monthly

V. RESULTS AND ANALYSIS

5.1. Stationary Test Results

The methodology of stationary in variables test of this study by using Augmented Dickey Fuller (ADF) level of five percent with test for unit root in level. The test of 7 (seven) research variables on the test For unit root in level turns out the result is not stationary. Furthermore, Stationary Test must be continued with the test for unit root in 1st (First) difference in fact the result on 6 (six) variables of research on test for unit root in 1st (First) difference in fact consist of one variable that is not stationer that is in JUB. In the end there is a stationary result tested by a 2nd (Second) difference.

5.2. Determination of Optimun Lag

The determination of lag optimal used in this study is based on the shortest lag using the Akaike Information Criterion (AIC). The results of optimal lag determination test, which based on the criteria SC and HQ optimum in lag 1.

5.3. Granger Causality Test

Accordance with the results of Granger's Causality states that only 9 statements having probability values of $\leq 5\%$ (0.05) means there is a Causality between exogenous and exogenous variables, or vice versa. Here is 9 statements correlate a relationship with Granger causality can be seen as follows:

1. There is a VPLSF causality relationship to INFLATION
2. There is a VPLSF causality relationship to IR
3. There is a causal relationship of GDP to TPF
4. There is a causal relationship of GDP to PS.
5. There is a causal relationship of GDP to MS.
6. There is a causal relationship between TPF and PS.
7. There is an IR causality relationship to PS.
8. There is a causal relationship of MS to PS.

9. There is a causality relationship of Inflation to IR

5. 4. Cointegration

Based on the results of cointegration test of this study, the solution of the model equation must be solved by the Vector Error Correction Model (VECM) equation.

5. 5. VCEM

The Vector Error Correction Model (VECM) estimation results can be analyzed for long and short-term equations. The results are as follows: PS, IR, Inflation, and GDP Level Instruments based on long-term Vector Error Correction Model (VECM) estimation results have a significant influence with high coefficients on VPLSF.

Based on the VECM estimation of the significant variables in the short term is GDP influenced by GDP, the TPF is influenced by MS, PS influenced by MS, Inflation is affected by IR, IR influenced by Inflation and IR, meanwhile MS is not influenced by none.

5.6. Impulse Response Function

Based on the impulse response function analysis,(dinamis model role), the order of variables from highest to lowest is Profit Sharing (PS), Gross Domestic Product (GDP), IR, Inflation, MS, VPLSF and TPF

5.7. Variance Decomposition

Based on the analysis of Variance Decomposition (model characteristics) it turns out that the order of the variables that have the most important composition and the big role from the highest to the lowest is the PS Level, Gross Domestic Product (GDP), Inflation, IR, TPF, VPLSF and MS.

VI. CONCLUSION

Based on the impulse response function analysis, the order of variables from the highest is Profit Sharing (PS) then Gross Domestic Product (GDP). Furthermore, based on the analysis of Variance Decomposition, the order of variables has the most important composition and the big role is Profit Sharing (PS) and Gross Domestic Product (GDP). The VPLSF instrument based on impulse response analysis and Variance Decomposition did not occupy the greatest response or composition. PS Level, Gross Domestic Product (GDP) and IR instruments, based on impulse response and Variance Decomposition analysis, occupy the largest response and composition

VII. RECOMMENDATION

1. Asking the government tries striving to encourage the using of profit-sharing instrument which is the instrument of monetary system of sharia.
2. Educating the entrepreneur community to choose financing using the profit-sharing instrument.
3. Encouraging banks to apply the profit sharing systems, and at the same time, promoting courteousness and honesty is the key in implementating of profit-sharing agreements. The profit-sharing system requires intelligent Human Resource (HR) and mastered the technology accordance with the development and has a polite, honest and behave well.
4. Strengthening the support and encouragement of the legislative and governmental institutions towards the strengthening of sharia banking, especially related to the establishment of sharia banking that apply for the results and available the opportunities the funding to the world of sharia banking like pilgrim funds.

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