

# Endogenous Factors for Financing Rationing on Sharia Banking in Indonesia

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**Abstract**—The aim of this research is to find the impact of revenue sharing, banks equity, NPF and total financing to a profit of Islamic Banking. The main aim of this research is to look for the financing of rationing in Indonesia's Islamic Banking. This research is quantitative approach use panel data with OLS (Ordinary Least Square) method estimated every bank hence use time series data regression. The dependent variable of this research is bank profit and independent variables are revenue sharing. The result of this research is the optimum revenue sharing each bank are different. The optimum revenue sharing acquired by derivation of the coefficient of revenue sharing variable and the coefficient of revenue sharing quadrate variable which had been antilog. The conclusion of this research is Islamic banking ration their financing when the revenue sharing every bank more than the optimum revenue sharing. Islamic banking ration their financing are Bank Muamalat, Bank Panin Syariah, Bank Jabar Banten Syariah, and Bank Victoria Syariah whereas Islamic bank does not ration their financing are Bank Mega Syariah, Bank Syariah Mandiri, Bank Rakyat Indonesia Syariah, Bank Syariah Bukopin, BCA Syariah and BNI Syariah.

**Keyword-** derivation, financing rationing, Islamic Banking, optimum revenue sharing

## I. INTRODUCTION

Indonesia has a big potential to be the global player of sharia financial, due to 1) the majority of moslem people; 2) the prospect of economy is bright due to the high economy growth; 3) the increase of Indonesia sovereign credit rating become investment grade that will increase investors interest to invest in domestic financial sector; 4) high natural resource as the underlying sharia financial industry transaction [1]. The increasing of sharia financial industry to global player shown by the rank of sharia financial total asset from the 17<sup>th</sup> in 2009 to 13<sup>th</sup> in 2010 with the value of asset is US\$ 7,2 billion. By looking at the rapid development of sharia finance, especially sharia banking and sukuk (sharia bond) issuance, the total assets of Indonesian sharia finance in 2011 are believed to have exceeded the US \$ 20 billion so that its ranking will increase significantly [1].

The growth of sharia banking is good shown by the net profit ratio between general sharia banking and sharia business unit in 2016 is increase from January until April, but in Mei is decrease to 27% from April. In June, net profit has increased to Rp. 741 billion from May, this increase continued until November which the highest net profit both general sharia banking and sharia business unit in 2016. But, in December decreased to Rp. 676 billion. The growth of sharia banking in Indonesia can have an impact on increasing financing. Therefore, there is a need to limit the distribution of financing. The high financing risk the existence of non-performing financing that damage to bank. Therefore bank need rationed their fund distribution.

Financing is one of the sharia banking products in channeling funds based on trust. The financing provided by sharia banking is different from the credit provided by conventional banking where the return given to the customer is not in the form of interest but in other forms in accordance with the contracts provided by sharia banking. The nature of financing in sharia banking is not in the form of debts but in the form of investments provided by bank to customers in carrying out their business [2].

It can be seen from the graph above that the financing that has been channeled by shariabank on December 2016 has diverse values where the largest financing is channeled by Bank Muamalat Indonesia in the amount of Rp. 21 trillion and the smallest is channeled by Bank Mega Syariah of Rp. 343 billion. The financing channeled by Bank Mandiri Syariah is Rp. 171 trillion, BRI Syariah Rp.6 trillion, Bank Panin Syariah distributed Rp. 5 trillion, BNI Syariah Rp. 4 trillion, Bank Bukopin Syariah channeled Rp. 2 trillion, BCA Syariah distributed Rp. 1.9 trillion, Bank Jabar Banten Syariah Rp. 1.1 trillion and Bank Victoria distributes Rp. 962 trillion of financing. Financing is divided into two forms, namely borrower restrictions and limitation on loan amounts [3]. Limitation of financing distribution is done to avoid bad financing, so that the funds turnover in the bank is smooth and will affect the financing of the real sector [4].



Graph 1. Financing that has been channeled by Sharia Commercial Bank on December 2016 (in million rupiah)  
(Source: OJK, 2016)

One of the indicator of non-performing financing (NPF), which is the ratio of NPF to total financing where financing customers find it difficult to pay off borrowed funds. Sharia banking NPF in Indonesia from the Sharia Banking Statistics report has increased every year, which means that every year from 2014 to 2017 the problematic financing in sharia banking always increases in line with the increased risk of default or default. The increase in NPF can reflect the bank's failure to determine its financing distribution and an increase in NPF is the reason for the bank's profit to decrease which can be seen from the comparison of bad financing with the amount of financing disbursed. Non-performing loans (NPL) in conventional banks are lower than non-performing financing in sharia banks. In 2014 conventional bank NPL was 2.16% while sharia bank NPF was 4.95 &. In 2015 the NPL was 2.49% while the NPF was 4.84%. In 2016 the NPL was 2.93% and the NPF was 4.42%, and in 2017 the NPL was 2.59% and the NPF was 4.8%.

To suppress problematic financing can what financing. To rationed the financing divided into two factors, there are exogen and endogen. Exogenous factor influenced by bank extern and endogenous factor influenced by bank intern such growth rate of the loan portfolios; the rate of growth of the provisions and solvency ratio [5]. According to Matthews [6], endogenous credit rationing arise cause asymmetry information, adverse selection, adverse incentive, and moral hazard. The aim of this research is to measure the impact of endogenous factors of banking to rationed the fund distribution by sharia banking in Indonesia.

## II. METHOD

### Ordinary Least Square Method

This study uses a quantitative approach in the form of monthly data published by the Bank of Indonesia and OJK. The object of research is all Sharia commercial banks in Indonesia by using monthly data from 2011 - 2016. Bank profit data is the amount of profit or loss that the bank earns from

operating and non-operating income of the bank after deducting the expenses that must be paid by the bank in the current year while the profit sharing rate is the ratio between the profit sharing of sharia bank and the total financing that has been channeled by the bank. The analysis used in this study is descriptive and econometric analysis. Descriptive analysis is used to provide an overview of the activity process and the data obtained. The econometric analysis used in this study is multiple linear regression with the OLS method. OLS regression analysis according to Gujarati [7] aims to measure the strength of the relationship between two or more variables and shows the direction of the relationship between the dependent variable and the independent variable. OLS is used to find straight lines that pass through a set of observation points by minimizing the number of residual squares [8].

Model used as follows:

$$Y_t = \beta_0 + \beta_1 tbh_{1t} + \beta_2 tbh_{2t} + \mu_t$$

- $Y_t$  : profit
- $tbh_1$  : revenue sharing
- $tbh_2$  : revenue sharing to find the optimum level
- $\beta_0$  : constanta
- $\beta_1, \beta_2$  : coefficient
- $\mu_t$  : error

### Optimum Profit Sharing Level Derivation Method

In determining the optimum profit sharing using derivation or derivative methods. Economic theory can be represented by the application of mathematical methods to remove problems in economics, one of which uses the derivation method [6]. The derivation model is:

$$\begin{aligned} \frac{\partial \pi}{\partial} &= \beta_2 tbh + \beta_3 tbh^2 \\ &= \beta_2 tbh + 2\beta_3 tbh^{2-1} \\ \beta_2 &= 2\beta_3 tbh \\ tbh &= \frac{\beta_2}{2\beta_3} \end{aligned}$$

Where:

$\pi$  : profit bank

$\delta$  : derivasi

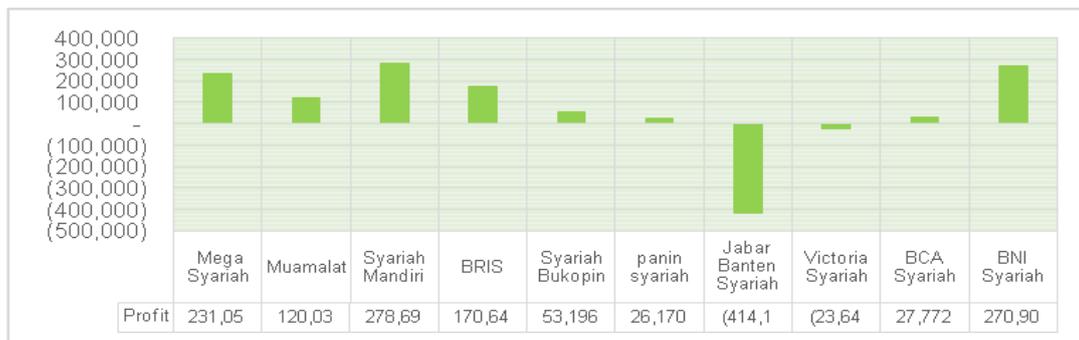
tbh : revenue sharing

$\beta$ :coefficient

### III. RESULT AND DISCUSSION

#### Banking Profit

The profit is the profit or loss of the shariabanking in the current year obtained from the bank's operating and non-operating income after deducting the expenses that must be paid by the bank.



Graph 2. Profit Total Sharia General Banking (in million rupiah)  
(Source: OJK, 2016)

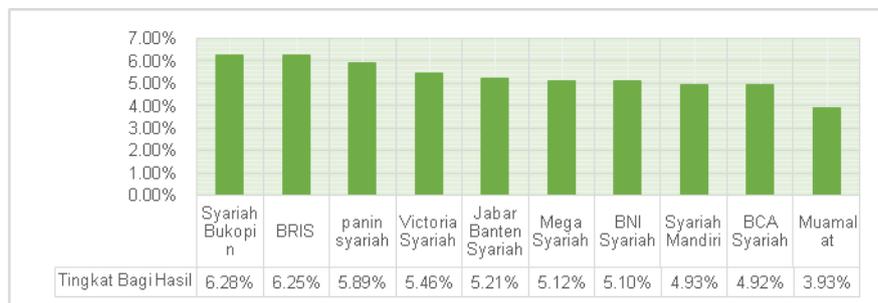
Graph above shows that the total profit of sharia commercial banks in December 2016 shows different numbers. The highest profit is owned by Bank Mandiri Syariah in the amount of Rp. 278 billion while Bank Jabar Banten Syariah suffered a loss of Rp. 414 billion. As reported by the [republika.co.id](http://republika.co.id) news page, Bank Jabar Banten Syariah losses were caused by pressure from the Reserve Impairment Losses which caused operating costs to rise 375.4 percent to Rp 2.17 trillion [9].

In addition, the total profit of Bank Mega Syariah in December 2016 was Rp. 231 billion. The advantage of Bank Muamalat Indonesia is Rp. 120 billion, BRI Syariah Rp. 170 billion, Bank Bukopin Syariah has a profit of Rp. 53 billion, Bank Panin

SyariahRp. 26 billion, Bank Victoria Syariah suffered a loss of Rp. 26 billion, BCA Syariah has a profit of Rp. 27 billion and BNI Syariah has a profit of Rp. 270 billion.

#### Profit Sharing Rate

Profit sharing is determined by the ratio agreed between the customer and the bank based on the financing agreement that will be proposed based on the possibility of gains and losses. The amount of profit sharing is calculated based on the agreed ratio multiplied by the amount of income earned so that the profit sharing rate is influenced by the income obtained by the bank. This causes the bank's profit sharing rate to fluctuate [2].



Graph 3. Profit Sharing Rate Sharia General Banking  
(Sumber: OJK, 2016)

The data in the graph above shows the level of profit sharing for each sharia banking from the largest to the smallest. The profit sharing rate of Bank Bukopin Syariah is 6.28%, Sharia BRI 6.25%, Bank Panin Syariah 5.89%, Bank Victoria 5.46%, Bank Jabar Banten Syariah 5.21%, Bank Mega Syariah

5.12%, BNI Syariah 5.10%, Bank Mandiri Syariah 4.93%, BCA Syariah 4.92% and Bank Muamalat Indonesia about 3.93%.

Based on the results of OLS regression to analyze the effect of the level of profit sharing on profits is as follows:

**Table 1. Result of OLS Regression**

Number	Bank	Profit Sharing	Profit Sharing <sup>2</sup>
1	Mega Syariah	-0,128 (-0,139)	0,808 (0,664)
2	Muamalat Indonesia	-0,364 (0,185)***	2,885 (0,760)*
3	Mandiri Syariah	0,096 (0,14)	0,494 (0,578)
4	BRI Syariah	0,105 (-0,381)	0,398 (1,658)
5	Bukopin Syariah	0,182 (0,293)	0,054 (1,345)
6	Panin Syariah	-0,724 (0,240)*	4,022 (0,999)*
7	Jabar Banten Syariah	-0,313 (0,160)***	2,471 (0,719)*
8	Victoria Syariah	-0,502 (0,170)*	3,117 (0,784)*
9	BCA Syariah	-0,350 (0,465)	2,372 (1,712)
10	BNI Syariah	-0,116 (0,286)	1,481 (1,247)

\* Significant at  $\alpha = 1\%$

\*\* Significant at  $\alpha = 5\%$

\*\*\* Significant at  $\alpha = 10\%$

From the estimation results obtained that at Bank Muamalat, the rate of profit sharing has a significant effect on profit. When the profit sharing rate rises 1%, profit will decrease by 0.364%. At Bank Panin Syariah, the rate of profit sharing has a significant effect on profit. When the profit sharing rate increases by 1%, profit will decrease by 0.724%. At Bank Jabar Banten Syariah, the rate of profit sharing has a significant effect on profit. When the profit sharing rate increases by 1%, profit will decrease by 0.3134%. At Bank Victoria Syariah, the

rate of profit sharing has a significant effect on profit. When the profit sharing rate rises 1%, profit will decrease by 0.502%. Whereas in the Bank Mega Syariah, Bank Syariah Mandiri, Bank Rakyat Indonesia Syariah, Bank Bukopin Syariah, BCA Syariah and BNI Syariah, the rate of profit sharing does not affect the profit of each bank.

Based on the results of the estimation above, then the optimum level of profit sharing for each bank is obtained. Calculation of financing restrictions can be seen in the following table:

**Table 2. Financing Rationing Rate**

Number	Bank	Average Revenue Sharing	Optimum Revenue Sharing	Rationing (Y/N)
1	Mega Syariah	6,375	1,166	N
2	Muamalat	5,200	1,199	Y
3	Syariah Mandiri	6,107	1,036	N
4	BRI Syariah	5,650	1,171	N
5	Syariah Bukopin	6,176	1,035	N
6	Panin Syariah	5,424	1,227	Y
7	Jabar Banten Syariah	6,098	1,657	Y
8	Victoria Syariah	4,834	1,207	Y
9	BCA Syariah	5,075	1,202	N
10	BNI Syariah	5,021	1,087	N

Based on the calculation above, it is known that the average profit-sharing rate of 5.2 is greater than the optimum yield level of 1.199; then Bank Muamalat already needs to limit financing to customers. At Bank Panin Syariah the average profit-sharing rate of 5.424 is greater than the optimum profit sharing rate of 1.227; then Bank Panin Syariah already needs to limit financing to customers. At Bank Jabar Banten Syariah the average profit-sharing rate of 6.098 is greater than the optimum profit sharing rate of 1.657; then Bank Jabar Banten Syariah already needs to limit financing to customers. At Bank Victoria Syariah the average profit-sharing rate of 4.834 is greater than the optimum yield level of 1.207; then Bank Victoria Syariah needs to limit financing to customers. The objective of limiting the disbursed loans is to limit the risk of non-performing loans faced by banks. Banks are required to apply the precautionary principle and risk management in channeling financing. In the framework of the application of the precautionary principle and risk management, Banks are required to have written policy guidelines and procedures concerning Provision of Funds to Related Parties and/or large Provision of Funds. Whereas for Bank Mega Syariah, Bank Mandiri Syariah, Bank Rakyat Indonesia Syariah, Bank Bukopin Syariah, BCA Syariah and BNI Syariah, financing restrictions cannot be defined. This happens because the rate of profit sharing does not affect profits.

#### IV. CONCLUSION

Financing restrictions need to be made at Bank Muamalat, Bank Panin Syariah, Bank Jabar Banten Syariah, and Bank Victoria Syariah. These banks have a profit sharing rate that is greater than the optimum

level of profit sharing. Whereas for Bank Mega Syariah, Bank Syariah Mandiri, Bank Rakyat Indonesia Syariah, Bank Syariah Bukopin, BCA Syariah and BNI Syariah, financing restrictions cannot be defined.

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