

## The Analysis of Efficiency and Finance to Deposit Ratio on Return on Assets at Sharia Banks In Indonesia

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### Abstract

This study is intended to analyze the performance of Sharia banks in Indonesia through the alleged influential factors, namely efficiency and finance to deposit ratio. This research to analysis (1) Efficiency (BOPO), Finance to Deposit Ratio and Returns on Asset at Sharia Commercial Banks in Indonesia in 2012-2017, (2) Effect of Efficiency (BOPO) and Financing to Deposit Ratios on Return on Asset at Sharia Commercial Banks in Indonesia. This study uses annual financial report data issued by each bank in 2012-2017. The total population in this study was 13 banks, after passing through purposive sampling, the number of samples used was 8 banks. The method used is the descriptive method and a quantitative method with panel data analysis. Based on the results of the research show: (1) Efficiency, Finance to Deposit Ratios and Returns on Asset at Sharia Commercial Banks in Indonesia from year to year which is being updated. (2) Efficiency has negative effect and significantly on Return On Asset while Finance to Deposit Ratio has positive effect and insignificant effect on Return On Assets.

**Keywords:** Efficiency, Financing to Deposit Ratio, Return on Assets, Sharia Banks.

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### INTRODUCTION

This has become a strategic position in the economy because of its activities, namely raising funds and channeling funds to the people in need will increase the flow of funds for investment, working capital, and consumption. Thus it will improve the economy of a country.

In the 2016 publication of the Islamic Financial Services Industry Stability Report, it is mentioned that Indonesian Islamic banking is currently one of the contributors to the development of global sharia banking which is estimated to have total assets of \$ 1.9 trillion at the end of 2016 with a contribution of 2.5% of total global Sharia financial assets. While in the 2016 Asian Development Bank report, it was stated that Indonesia contributed 13.4% of all Sharia banking assets in Asia which reached \$ 209.3 billion. The 2016 Global Islamic Finance Report also states that Indonesia and the UAE, Kuwait, Bahrain, and Qatar are grouped as emerging leaders as countries that have the potential to have an influence on global Islamic finance.

Positive growth marks the development of Sharia banking in 2016 after the last 3 years experiencing a slowdown in growth. At the end of 2016, Indonesian sharia banking consisting of Sharia

Commercial Banks, Sharia Business Units and Sharia Rural Financing Banks recorded asset growth, financing provided (PYD) and industrial third-party funds (DPK) National Islamic banking in 2016 grew significantly, each by 20.28%, 16.41% and 20.84%. The total assets, PYD, and deposits of the national Islamic banking industry in 2016 reached Rp365.6 trillion, Rp254.7 trillion and Rp285.2 trillion [1].

As a financial institution, performance appraisal is an important thing to be done by parties involved in Sharia banks. Performance appraisal for management is an indicator of the achievements of the company. Bank performance reflects the health of the bank, based on Circular letter of Bank Indonesia No. 9/24/DPBs that Bank health is influenced by CAMELS factors (Capital, Asset Quality, Management, Earning, Liquidity, Sensitivity to Market Risk).

The healthy profitability of banks is very necessary for the smooth functioning of banks as intermediary institutions, bank financial statements are the main source of bank profitability performance assessment. The ratio calculated in financial statements forms the basis of bank performance appraisal. Profitability ratio is a ratio to assess a company's ability to seek profits. This ratio provides a level of

management effectiveness of a company. Profitability in banking is usually measured using the main ratios, namely Return On Equity (ROE) or Return On Assets (ROA). However, generally, banks in Indonesia attach importance to the assessment of ROA compared to ROE because ROA emphasizes the value of profitability produced by assets, most of which are funds collected from the community. Efficiency is one indicator that shows the health of Sharia banks. Efficiency is usually measured using the BOPO ratio (Operating Costs to Operating Income). BOPO is the ratio of the ratio of operating costs to operating income, the lower the ratio, the better, meaning the better the

performance of the bank's management and the more efficient the sources of funds available in the company [2]. Liquidity is the company's ability to fulfill obligations or pay the short-term debt, liquidity is one aspect that affects profitability. Liquidity is usually measured using the Loan to Deposit Ratio (LDR) ratio. LDR is a comparison between the total credit given and the total Third Party Funds (DPK) collected by the bank. The LDR will show the bank's ability to channel third-party funds collected by the bank. In Islamic banking, there is no term for credit (Loan), so LDR in Islamic banks is called Finance to Deposit Ratio (FDR) [3].

**Table-1: Development of ROA, BOPO and FDR in Sharia Commercial Banks in Indonesia in 2012-2017**

Ratio	Year					
	2012*	2013*	2014	2015	2016	2017
ROA %	2.14	2.00	0.41	0.49	0.63	0.63
BOPO %	74.97	78.21	96.97	97.01	96.22	94.91
FDR %	100	100.32	86.66	88.03	85.99	80.07

\*Combined data of Sharia Commercial Banks, Sharia Business Units; Source: 2013 and 2017 Sharia Banking Statistics (data processed).

Based on the development of the ratio values in Table-1 above, it can be seen that there are fluctuations in the percentage value ratio that is not in accordance with the existing theory, where the BOPO ratio according to the theory has a negative influence on the ROA ratio [4]. But the facts in the field in 2016 and 2017 BOPO ratio values decreased by 1.31%, not followed by an increase in the value of the ROA ratio.

The FDR ratio value according to the existing theory has a positive influence on ROA, but in 2015 and 2016 the FDR ratio value showed a negative influence on ROA where the FDR ratio decreased from 88.03% to 85.99% not followed by a decrease in the ROA ratio which actually increased from 0.49% to 0.63, this is in line with the previous research [5] which states that there is a negative relationship between FDR and ROA.

From the results of the data analysis, the writer found a gap between the existing theories and the reality in the field and the results of previous studies, therefore it is necessary to do further research on these ratios. As for previous studies as a consideration for the authors to conduct further research, found different results such as efficiency have a positive effect [6-8], efficiency has a negative effect [9, 10], liquidity has a positive effect [11-13], liquidity has a negative effect [5, 14, 15]. Therefore, based on the background above, this study aims to determine and analyze the effect of Efficiency and Finance to Deposit Ratios on Return On Assets in Sharia Commercial Banks in Indonesia in 2012-2017.

## LITERATURE REVIEW

### Return on Assets

Return on Assets (ROA) reflects how much the company has obtained results from financial resources invested by the company. Return on Assets (ROA) is one of the profitability ratios that can measure a company's ability to generate profits from assets used. ROA is a ratio that is used to measure management's ability to generate or earn profits (profits) as a whole [16]. ROA is a comparison between the amount of profit obtained by the bank during a certain period and the number of assets the bank has. This ratio is used to measure the ability of banks to manage their assets to generate profits (profits) as a whole [2]. Positive Return on Assets (ROA) shows that the total assets used to operate by the company are able to provide profits for the company. Conversely, if the Return on Assets (ROA) is negative, it is caused by the condition of the company's profit experiencing a loss, this indicates the ability of the invested capital as a whole has not been able to generate profits.

If the company has a high Return on Assets (ROA) ratio, the company has a big chance of generating and increasing its operating profit, and vice versa if the company has a low Return on Assets (ROA) ratio, causing a slowdown in company growth due to Return On Negative Assets (ROA). The value of Return On Assets (ROA) which is getting closer to the number 1 means that the better the profitability of the company because each asset owned can generate profits [17]. Thus it can be concluded that the higher the Return on Assets (ROA) means the more effective the company's performance so that the company's capital structure can reflect financing activities with the rate of return or profit earned.

## Efficiency

Efficiency is defined as the ratio between the output and input. A company is said to be efficient if it produces a larger output than other companies that use the same input. Or produce the same output, but the input used is less than the number of inputs used by other companies [18]. Efficiency is the right way (effort, work) in carrying out something by not wasting time, energy and costs. Efficiency also means the ratio between input and output or cost and profit [25]. The efficiency aspect assessment is intended to measure the bank's ability to utilize the funds owned and the costs incurred to operate the fund. The results of previous studies showed that efficiency had a positive impact on the performance of conventional banks but had no impact on Islamic banks [19].

To measure the efficiency of a bank, one of the indicators used is a comparison between operating costs and operating income (BOPO). Operational costs are costs incurred by banks in order to carry out their main business activities such as interest costs, labor costs, marketing costs, and others. The greater operational costs result in a decrease in profitability in Islamic banks [20]. Whereas operating income is the bank's main income, namely interest earned from the placement of funds in the form of credit and other operating placements. BOPO is the ratio of the ratio of operating costs to operating income, the lower this ratio means the better the performance of the bank's management and more efficient in using existing sources of funds in the company [2].

Circular letter of Bank Indonesia No. 6/23/DNDP dated 31 May 2004 Appendix I, Operational Costs to Operating Income (BOPO) is measured by the comparison between operating costs and operating income [21]. This ratio, called the efficiency ratio, is used to measure the ability of bank management to control operational costs against operating income. BOPO is a comparison between the ratio of operational costs in the last 12 (twelve) months to operating income in the same period [16]. The assessment criteria that will be obtained by the bank from the value of the Operational Cost to Operational Income (BOPO) are 50-75% (Very healthy), 76-93% (Healthy), 94-96% (Fairly healthy), 97-100% (less healthy), and >100% (Unhealthy).

The ideal value of Operational Costs for Operational Income (BOPO) for a bank to be declared efficient is 50-75%, Bank Indonesia sets a BOPO of 76% so that a bank is said to be in a healthy condition. This BOPO ratio is used to measure the ability of bank management to control operational costs against operating income. The smaller the ratio means the more efficient the operational costs incurred by the bank so that a bank in a problematic condition will get smaller.

The efficiency of a bank is one aspect that must be considered by banks, where the ability of banks to reduce operating costs against operating income is one indicator of bank health. This efficiency is usually measured using the BOPO ratio. The lower the ratio, the better the effectiveness of the bank's operational activities. The indicator needed to measure this ratio is the comparison between total operational costs and operating income. This level of ratio will affect the profitability of a bank. This is in line with previous research [9, 10] stating a significant negative effect on efficiency on Return On Assets. Therefore, the first hypothesis is:

H1: Efficiency has a negative effect on Return on Assets in Sharia Commercial Banks

## Finance to Deposit Ratio

Finance to Deposit Ratio (FDR) is a comparison between the financing channeled by banks with deposits (Third Party Funds) that have been collected by banks [22]. While the other definition, Finance to Deposit Ratio is the ratio to measure the composition of the amount of financing provided compared to the number of public funds and own capital used [17]. The higher this ratio shows the lower the ability of bank liquidity because the amount of funds needed for financing is getting bigger [2].

Based on the provisions contained in Circular Letter of Bank Indonesia No.12 / 11 / DNDP, the amount of Finance to Deposit Ratio (FDR) that reflects a bank's liquidity is said to be healthy is 85% to 110% [23]. If a bank's Finance to Deposit Ratio (FDR) is above or below 85% to 110%, the bank does not carry out its main function. The following Finance to Deposit Ratio assessment criteria are  $FDR \leq 75\%$  (Not good),  $75\% < FDR \leq 85\%$  (Good enough),  $85\% < FDR \leq 100\%$  (Very good),  $100\% < FDR \leq 120\%$  (Good enough), and  $FDR > 120\%$  (Not good).

If a bank's FDR is below 80% (for example 70%), it can be concluded that the bank is only able to channel 70% of all funds collected. Because the main function of the bank is as an intermediary between the party with excess funds and those who lack funds, then with FDR 70%, it means that 30% of all funds raised are not properly channeled, it can be concluded that the bank does not function as an intermediary.

Whereas if the FDR is too high (more than 110%), it means that the total funding provided by the bank exceeds the funds that have been collected. Because the funds collected from the community are few, the bank does not carry out its function as an intermediary institution, and if public funds are lacking, banks often issue inter-bank funds (call money) that should not be used to finance financing. This high and low ratio indicates the level of liquidity of the bank. The higher the number of FDR (Finance to Deposit

Ratio) a bank describes the more liquid a bank is and will be followed by an increase in profitability. This is in line with previous research [11-13] which stated the positive effect of liquidity on Return on Assets. Therefore, the second hypothesis is:

H2: Finance to Deposit Ratio has a positive effect on Return on Assets in Sharia Commercial Banks

## RESEARCH METHODS

The objects in this study are Efficiency, Finance to Deposit Ratio and Return on Assets in Sharia Commercial Banks in Indonesia in 2012-2017. This study uses panel data obtained secondary (both financial and non-financial data) published by the websites of each Sharia Commercial Bank in Indonesia, which are as many as 13 Sharia Commercial Banks in Indonesia. The research sample was taken by purposive sampling, purposive sampling is a technique of determining samples with certain considerations. In this study, the authors conducted an analysis of the magnitude of the influence caused by the independent variables on the dependent variable. The author uses 3 (three) variables consisting of 2 (two) independent variables and 1 (one) dependent variable. In this study, the independent variable is Efficiency and Finance to Deposit Ratio and Dependent Variable is Return on Assets.

Banking companies that are sampled are able to provide the information needed for this research, where samples are used if they meet the criteria the author has determined.

- Sharia Commercial Banks in Indonesia registered with OJK
- The bank under study operates in the study period
- Banks that report financial ratios needed by research

Based on the results of purposive sampling, the authors set the sample as the object of research, 1) Bank Muamalat Indonesia, 2) Bank Victoria Syariah, 3) Bank BRI Syariah, 4) Bank Syariah Mandiri, 5) Bank BNI Syariah, 6) Bank Panin Dubai Syariah, 7) Bank Syariah Bukopin and, 8) Bank BCA Syariah.

### Financial Ratio Analysis

Financial ratio analysis is used to calculate the variables used in the study, while the financial ratios used in the study are as follows:

#### Efficiency

To calculate efficiency using the ratio of Operational Costs to Operating Income (BOPO), the formula used is:

$$\text{BOPO} = \text{Operating Costs} / \text{Operating Income}$$

### Finance to Deposit Ratio

The formula used is:

$$\text{FDR} = \text{Total Financing} / \text{Total Third Party Funds} \times 100\%$$

### Return on Assets

The formula used is:

$$\text{ROA} = \text{Profit Before Tax} / \text{Average Total Assets} \times 100\%$$

### Data Analysis

To estimate the model parameters with panel data, there are three techniques (models) that are often offered [24], namely the Common Effect Model, the Fixed Effect Model, and the Random Effect Model. To choose the most appropriate model used in managing panel data, there are several tests that can be done namely:

#### Chow Test

Chow Test is a test to determine the Fixed Effect or Common Effect model that is most appropriate to use in estimating panel data. If the Chi-Square probability value is  $> 0.05$ , the chosen model is the Common effect, if the Chi-Square probability value is  $< 0.05$  then the chosen model is the Fixed Effect.

#### Hausman Test

Hausman Test is a statistical test to choose whether the Fixed Effect or Random Effect model is best used. If the probability output value of the random cross-sectional shows a value of  $< 0.05$ , the Fixed Effect model is selected, whereas if the value is  $> 0.05$ , the chosen model is the Random Effect.

#### Test Lagrange Multiplier

This Lagrange Multiplier Test is used to determine whether the Random Effect model is better than the Common Effect method using the Lagrange Multiplier (LM) test. This test uses the Breusch-Pagan method by looking at the value of P-value if the P-value of Breusch-Pagan  $< 0.05$  then using the opposite Random Effect if  $> 0.05$  using the Common Effect.

### Data Panel Regression

Panel data regression analysis is a regression analysis based on panel data to observe the relationship between one dependent variable with one or more independent variables [24]. As is known, panel data is a class between cross-section data and time series.

$$Y_t = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \varepsilon$$

## RESULTS AND DISCUSSION

### Efficiency in Sharia Commercial Banks in Indonesia in 2012-2017

Efficiency is a comparison between input and output used by the company in carrying out the company's operational activities. The indicator used to calculate the efficiency of a company one of them uses

the ratio of Operational Costs to Operating Income (BOPO). BOPO is a measuring tool to analyze the efficiency level of a bank considering the efficiency of a bank in managing a company becomes a positive value for ideal operational continuity and is able to minimize operational costs against bank operating

income. Based on the results of research conducted by the authors on Sharia Commercial Banks in Indonesia in 2012-2017, the authors present data on BOPO from Sharia Commercial Banks which are the research objects as follows:

**Table-2: Operational Costs to Operating Income (BOPO) At Sharia Commercial Banks**

No.	Name of Bank	2012	2013	2014	2015	2016	2017	Average
1	Bank Muamalat Indonesia (%)	84.47	93.86	97.36	97.36	97.76	97.68	94.47
2	Bank Victoria Syariah (%)	87.9	91.95	143.4	119.19	131.34	96.02	111.63
3	BRI Syariah (%)	91.31	90.42	99.77	93.79	91.33	95.24	93.64
4	Bank Mandiri Syariah (%)	80.00	84.02	100.60	94.78	94.12	94.44	91.32
5	BNI Syariah (%)	88.79	88.11	89.8	89.63	86.88	87.62	88.47
6	Bank Panin Dubai Syariah (%)	47.6	81.31	82.58	89.29	96.17	217.4	102.39
7	Bank Syariah Bukopin (%)	91.59	92.29	96.77	91.99	109.62	99.2	96.91
8	BCA Syariah (%)	90.87	86.91	89.15	94.61	92.2	87.2	90.15
	Average (%)	82.81	88.6	99.92	96.33	99.92	109.35	
	Maximum (%)	91.59	93.86	143.4	119.19	131.34	217.4	
	Minimum (%)	47.6	81.31	82.58	89.29	86.88	87.2	

Source: website of each Sharia Commercial Bank (data processed)

A high BOPO value indicates that banks are less efficient in managing operational costs used for operating income earned. This can affect the level of profits to be obtained by the bank. While banks that have low ratios indicate that banks are able to manage income and operational costs in carrying out their activities. Based on the assessment criteria of Bank Indonesia No. 6/23/DNDP dated May 31, 2004 Appendix I concerning BOPO assessment, the results of the overall research on Sharia Commercial Banks which are the object of research in 2012-2017 are as follows:

In 2012, the average BOPO value of Sharia Commercial Banks was in the criteria of Healthy rating or at an average value of 82.81%, while the banks included in the Very Healthy assessment criteria were Bank Panin Dubai Syariah (47.60%), while other banks entered in the Healthy assessment criteria are Bank Muamalat Indonesia (84.47%), Bank Victoria Syariah (87.9%), BRI Syariah (91.31%), Bank Mandiri Syariah (80.00%), BNI Syariah (88.79%), Bank Syariah Bukopin (91.59%) and BCA Syariah (90.87%).

In 2013, the average BOPO value of Sharia Commercial Banks was in the Healthy assessment criteria or at an average value of 88.6%, while the banks included in the Healthy assessment criteria were Bank Muamalat Indonesia (93.86%), Bank Victoria Syariah (91.95%), BRI Syariah (90.42%), Bank Mandiri Syariah (84.02%), BNI Syariah (88.11%), Bank Panin Dubai Syariah (81.31), Bank Syariah Bukopin (92.29%) and BCA Syariah (86.6%).

In 2014, the average BOPO value of Sharia Commercial Banks was in the rating criteria for Unhealthy or at an average value of 99.92%, while banks included in the Healthy assessment criteria were BNI Syariah (89.8%), Bank Panin Dubai Sharia (82.58 %) and BCA Syariah (89.15%). The banks included in

the criteria for the Fairness of Health are and Bank Syariah Bukopin (96.77%) and banks included in the criteria for the assessment of Unhealthy are Bank Muamalat Indonesia (97.36%) and BRI Syariah (99.77%), while banks are included in the assessment criteria Unhealthy is Bank Victoria Syariah (143.4%) and Bank Mandiri Syariah (100.60%).

In 2015, the average BOPO value of Sharia Commercial Banks was in the rating criteria for Fairly Healthy or at an average value of 94.61%, while the banks included in the Healthy assessment criteria were BRI Syariah (93.79%), BNI Syariah (89.63%) and Bank Panin Dubai Syariah (91.99%). The banks included in the rating for the Fairly Healthy rating are Bank Mandiri Syariah (94.78%) and BCA Syariah, while the banks included in the criteria for the assessment of Unhealthiness are Bank Muamalat Indonesia (97.36%), and banks included in the criteria for Unhealthy assessment are Banks Victoria Syariah (119.19%).

In 2016, the average BOPO value of Sharia Commercial Banks was in the criteria of sound assessment or at an average value of 92.2%, while banks included in the criteria for sound assessment were BRI Syariah (91.33%), BNI Syariah (86.88%) and BCA Syariah (92.2%). The banks included in the rating for the Fairly Healthy rating are Bank Mandiri Syariah (94.12%) and Bank Panin Dubai Syariah (96.17%), while the banks included in the criteria for assessing Unhealthiness are Bank Muamalat Indonesia (97.36%), and are included in the criteria Unfair assessments are Bank Victoria Syariah (131.34%) and Bank Syariah Bukopin (109.62%).

In 2017, the average BOPO value of Sharia Commercial Banks is in the criteria of Unhealthy assessment or at an average value of 109.35%, while

the banks included in the Healthy assessment criteria are BNI Syariah (87.62%) and BCA Syariah (87.2%). The banks included in the Fairness rating criteria are Bank Victoria Syariah (96.02%), BRI Syariah (95.25%), Bank Mandiri Syariah (94.42%), while the banks included in the assessment criteria for Unhealthiness are Bank Muamalat Indonesia (97.68%) and Bank Syariah Bukopin (99.25%), and those included in the criteria for Unhealthy assessment are Bank Panin Dubai Syariah (217.4%) and Bank Syariah Bukopin (109.62%).

Whereas throughout 2012-2017 banks that had an average BOPO score in the Healthy assessment criteria included BRI Syariah (93.64), Bank Mandiri Syariah (91.32%), BNI Syariah (88.47%) and BCA Syariah (90.15%), banks that has an average BOPO

value in the rating criteria for the Fairly Healthy Bank Muamalat Indonesia (94.47%), while the banks included in the criteria for the assessment of Unhealthy are Bank Syariah Bukopin (96.91%), and banks included in the criteria for valuing Unhealthy are Bank Victoria Syariah (111.63%) and Bank Panin Dubai Syariah (102.39%).

### Finance to Deposit Ratio in Sharia Commercial Banks in Indonesia in 2012-2017

Finance to Deposit Ratio (FDR) is a comparison between financing disbursed by banks and third-party funds collected by banks. Third party funds can be in the form of savings, investments or deposits collected by banks. The following data that has been collected is presented as follows:

**Table-3: Finance to Deposit Ratio (FDR) At Sharia Commercial Banks**

No.	Name Of Bank	2012	2013	2014	2015	2016	2017	Average
1	Bank Muamalat Indonesia (%)	94.15	99.99	84.14	90.30	95.13	84.14	91.30
2	Bank Victoria Syariah (%)	46.08	84.65	95.19	95.29	100.67	83.59	84.24
3	BRI Syariah (%)	103.07	102.70	93.90	84.16	81.47	71.87	89.52
4	Bank Mandiri Syariah (%)	94.40	89.37	82.13	81.99	79.19	77.66	84.12
5	BNI Syariah (%)	84.99	97.86	92.60	91.94	84.57	80.21	88.69
6	Bank Panin Dubai Syariah (%)	105.66	90.40	94.04	96.43	91.99	86.95	94.24
7	Bank Syariah Bukopin (%)	92.29	100.29	92.89	90.56	88.18	82.44	91.10
8	BCA Syariah (%)	79.90	83.50	91.20	91.40	90.10	88.50	87.43
	Average (%)	87.56	93.59	90.76	90.25	88.91	81.92	
	Maximum (%)	105.66	102.70	95.19	96.43	100.67	88.50	
	Minimum (%)	46.08	83.50	82.13	81.99	79.19	71.87	

Source: website of each Sharia Commercial Bank (data processed)

Based on the research results, the FDR ratio value of less than 75% or more than 120% is said to be poor, this proves that banks are not good at channeling all funds collected from third parties to debtors so that banks are said not to carry out their main tasks, namely intermediary institutions. In addition, this also affects the profits that will be obtained by the bank in the future. Whereas banks that have FDR values at 85-100% are said to be good at managing funds that have been collected which are then channeled to debtors, meaning that the bank is able to do its job well and it can be said that the bank has high liquidity value.

Based on SE BI No.12/11/DNDP regarding FDR valuation, the results of research conducted by researchers have several assessment criteria for Sharia Commercial Banks in Indonesia in 2012-2017 which are the following research objects:

In 2012, the average FDR of Sharia Commercial Banks was included in the category of Very Good rating or at an average value of 87.56%, while banks included in the category of Very Good assessment were Bank Muamalat Indonesia (94.15%), Bank Mandiri Syariah (94.40%) and Bank Syariah Bukopin (92.29%), while banks included in the Fair Good evaluation criteria are BRI Syariah (103.07%), BNI Syariah (84.99%), Bank Panin Dubai Syariah

(105.66%) and BCA Syariah (79.90%), while the category included in the Lesser rating is Bank Victoria Syariah (46.08%).

In 2013, the average FDR of Sharia Commercial Banks was in the category of Very Good rating or at an average value of 93.59%, while banks included in the category of Very Good assessment were Bank Muamalat Indonesia (99.99%), Bank Mandiri Syariah (89.37%), BNI Syariah (97.86%) and Bank Panin Dubai Syariah (90.40%), while banks included in the criteria for Good Enough assessment are Bank Victoria Syariah (84.65%), BRI Syariah (102.70%), Bank Syariah Bukopin (100.29 %) and BCA Syariah (83.50%).

In 2014, the average FDR of Sharia Commercial Banks was in the category of Very Good rating or at an average value of 90.76%, while banks included in the Very Good rating category were Bank Victoria Syariah (95.19%), BRI Syariah (93.90 %), BNI Syariah (92.60%), Bank Panin Dubai Syariah (94.04%) and Bank Syariah Bukopin (92.29%) and BCA Syariah (91.20%), while the banks included in the Fairly Good rating category are Bank Muamalat Indonesia (84.14% ) and Bank Mandiri Syariah (82.13%).

In 2015, the average FDR of Sharia Commercial Banks was in the category of Very Good rating or at an average value of 90.25%, while banks included in the category of Very Good assessment were Bank Muamalat Indonesia (90.30%), Bank Victoria Syariah (95.29%), BNI Syariah (91.94%), Bank Panin Dubai Syariah (96.43%), Bank Syariah Bukopin (90.56%) and BCA Syariah (91.40%), while banks which are included in the Fairly Good evaluation criteria are BRI Syariah (84.16%) and Bank Syariah Mandiri (81.99%).

In 2016, the average FDR of Sharia Commercial Banks is in the category of Very Good rating or at an average value of 88.91%, while the banks included in the category of Very Good assessment are Bank Muamalat Indonesia (95.13%), Bank Panin Dubai Syariah (91.99%), and BCA Syariah (90.10%), while banks included in the criteria for Fair Enough assessment are Bank Victoria Syariah (100.67%), BRI Syariah (81.47%), Bank Syariah Mandiri (79.19%), BNI Syariah (84.57%) and Bank Syariah Bukopin (88.18%).

In 2017, the average FDR of Sharia Commercial Banks is in the category of Good Enough

assessment or at an average value of 81.92%, while banks included in the Very Good rating category are Bank Panin Dubai Syariah (86.95%) and BCA Syariah (88.50%), while banks included in the Good Enough rating category are Bank Muamalat Indonesia (84.14%), Bank Victoria Syariah (83.59%), Bank Mandiri Syariah (77.66%), BNI Syariah (80.21%) and Bank Syariah Bukopin (92.29%), while the banks included in the criteria for the assessment of Poor are BRI Syariah (71.87%).

The average value obtained by banks throughout 2012-2017 included in the Very Good criteria is Bank Muamalat Indonesia (91.30%), BRI Syariah (89.52%), BNI Syariah (88.69%), Bank Panin Dubai Syariah (94.24%), Banks Syariah Bukopin (91.10%) and BCA Syariah (87.43%). While the banks included in the Fairly Good criteria for managing FDR are Bank Victoria Syariah (84.24%) and Bank Mandiri Syariah (84.12%).

#### Return on Assets in Sharia Commercial Banks in Indonesia in 2012-2017

The following are the results of the Return on Assets study on Sharia Commercial Banks in Indonesia in 2012-2017:

**Table-4: Return on Assets (ROA) At Sharia Commercial Banks**

No.	Name of Bank	2012	2013	2014	2015	2016	2017	Average
1	Bank Muamalat Indonesia (%)	1.54	1.37	0.17	0.20	0.22	0.11	0.60
2	Bank Victoria Syariah (%)	1.43	0.50	(1.87)	(2.36)	(2.19)	0.36	(0.68)
3	BRI Syariah (%)	1.19	1.15	0.08	0.76	0.95	0.51	0.77
4	Bank Mandiri Syariah (%)	2.25	1.52	(0.03)	0.56	0.59	0.59	0.91
5	BNI Syariah (%)	1.48	1.37	1.27	1.43	1.44	1.31	1.38
6	Bank Panin Dubai Syariah (%)	3.84	1.03	1.99	1.14	0.37	(10.77)	(0.4)
7	Bank Syariah Bukopin (%)	0.55	0.69	0.27	0.79	(1.12)	0.02	0.2
8	BCA Syariah (%)	0.08	1.00	0.08	1.00	1.10	1.20	0.86
	Average (%)	1.54	1.07	0.24	0.44	0.17	(0.83)	
	Maximum (%)	3.84	1.52	1.99	1.43	1.44	1.31	
	Minimum (%)	0.55	0.50	(1.87)	(2.36)	(2.19)	(10.77)	

Source: website of each Sharia Commercial Bank (data processed)

Banks that have a low ROA value indicate that the bank is unable to generate profits from the processing of available sources of assets, this will have an impact on the trust of users of financial information and will cause losses and slowdown in growth at the bank. While banks that are able to produce high ROA values prove that the bank is able to generate profits from the management of available assets. This will also have an impact on the assessment of users of financial information and will accelerate bank growth.

Based on 2013 SE BI No.15/15/DNDP concerning the measurement of ROA ratio, the results of research on Sharia Commercial Banks in Indonesia in 2012-2017 there are rating categories for ROA produced by Sharia Commercial Banks as follows:

In 2012, the average ROA value in Sharia Commercial Banks was in the Very Good rating

category or at an average value of ROA of 1.54%, while banks included in the Very Good rating category were Bank Muamalat Indonesia (1.54%), Banks Syariah Mandiri (2.25%) and Bank Panin Dubai Syariah (3.84%), while banks included in the Good rating category are Bank Victoria Syariah (1.43%) and BNI Syariah (1.48%), while banks that are included in the Fairly Good rating category are BRI Syariah (1.19%), Bank Syariah Bukopin (0.55%), and those that are included in the Poor category are BCA Syariah (0.08%).

In 2013, the average ROA value of Sharia Commercial Banks was in the category of Good Enough assessment or at an average value of ROA of 1.07%, while the banks included in the Very Good rating category were Bank Syariah Mandiri (1.52%), while banks included in the Good rating category are Bank Muamalat Indonesia (1.37%) and BNI Syariah

(1.37%), while banks included in the Fairly Good rating category are Victoria Syariah Bank (0.50%), BRI Syariah (1.15%), Panin Bank Dubai Syariah (1.03%), Bank Syariah Bukopin (0.69%) and BCA Syariah (1.00%).

In 2014, the average ROA value of Sharia Commercial Banks was in the Poor rating category or at an average value of 0.24% ROA, while the banks included in the Excellent category were Panin Dubai Syariah Bank (1.99%), while banks included in the Good category are BNI Syariah (1.27%), while banks included in the category of Poor are Bank Muamalat Indonesia (0.17%), BRI Syariah (0.08%), Bank Syariah Bukopin (0.27%) and BCA Syariah (0.08 %), and those included in the category of Not Good are Bank Victoria Syariah (-1.87%) and Bank Mandiri Syariah (-0.03%).

In 2015, the average ROA value in Sharia Commercial Banks was in the Poor rating category or at an average value of 0.44% ROA, while the banks included in the Good valuation category were BNI Syariah (1.43%), while banks were included in the Good Enough category are BRI Syariah (0.76%), Bank Mandiri Syariah (0.56%), Bank Panin Dubai Syariah (1.14%), Bank Syariah Bukopin (0.79%) and BCA Syariah (1.00%), while banks are included in Poor rating category is Bank Muamalat Indonesia (0.20%), and banks included in the category of Not Good are Bank Victoria Syariah (-2.36%).

In 2016, the average ROA value in Sharia Commercial Banks was in the category of Poor rating or at an average value of 0.17%, while banks included

in the Good rating category were BNI Syariah (1.44%), while banks included in the Fairly Good rating categories are BRI Syariah (0.95%), Bank Mandiri Syariah (0.59%) and BCA Syariah (1.10%), while banks included in the Poor rating category are Bank Muamalat Indonesia (0.22%) and Panin Bank Dubai Syariah (0.37%), and those included in the category of Not Good are Bank Victoria Syariah (-2.19%) and Bank Syariah Bukopin (-1.12%).

In 2017, the average value of ROA of Sharia Commercial Banks is included in the category of Not Good or at an average value (-0.83%), while banks included in the Good rating category are BNI Syariah (1.31%), while banks are included in the Good Enough category are BRI Syariah (0.51%), Bank Mandiri Syariah (0.59%) and BCA Syariah (1.20%), while banks included in the Poor category are Bank Muamalat Indonesia (0.11%), Victoria Syariah Bank (0.36%), Bank Syariah Bukopin (0.02%), and the bank included in the category of Not Good is Bank Panin Dubai Syariah (-10.77%).

The average ROA value in 2012-2017 included in the Good category is BNI Syariah (1.38%), which is included in the criteria for Fairness is Bank Muamalat Indonesia (0.60%), BRI Syariah (0.77%), Bank Mandiri Syariah (0.91%) BCA Syariah (0.86%), while those included in the criteria for assessment are Poor are Bank Syariah Bukopin (0.2%) and those that are not good are Bank Victoria Syariah (-0.68%) and Bank Panin Dubai Syariah (-0.4%).

### Estimation Model

**Table-5: Estimation Model Test**

Chow Test	Effect Test	Statistic	d.f	Prob.
	Cross-section F		2.629672	(7.38)
	Cross-section Chi-square	18.960938	7	0.0083
Hausman Test	Test Cummary	Chi-sq. Statistic	Chi-sq d.f	Stat. Prob..
	Cross-section Random	0.049923	2	0.9753
Lagrange Multiplier Test		Cross-section	Test Hypothesis Time	Both.
	Breusch-Pagan	4.386148 (0.0362)	0.620401 (0.4309)	5.006549 ((0.0253)

Based on the Table-5:

- Chow test the data has a Chi-Square probability value of 0.0083 or <0.05, the chosen model is the Fixed Effect.
- Hausman test the data has a probability value of 0.9753 or > 0.05, the estimation model used is the Random Effect.
- Lagrange Multiplier test results the data has a Breusch-Pagan value of 0.0362 or <0.05, the estimation model used is the Random Effect.

### Estimation model used

**Table-6: Random Effect Model**

F Statistic					0.000
Variable	Coefficient	Std. Error	t-Statistic	Prob.	
BOPO	-0.610	0.039	-15.620	0.000	
FDR	0.018	0.038	0.479	0.633	
C	0.626	0.037	16.894	0.000	



Based on the simultaneous test results obtained probability value F (Prob-F-statistic) of 0.0000 or <0.05, the effect of Efficiency and Finance to Deposit Ratio simultaneously has a significant effect on Return On Assets in Sharia Commercial Banks in Indonesia, so the model is good and can be continued with partial analysis. R-Squared value of 0.879170 means the percentage of the effect of Efficiency and Finance to Deposit Ratio on Return on Assets is 87.91% and 12.09% is influenced by other variables such as Non-Performing Financing, Capital Adequacy Ratio, or other factors.

#### Effect of Efficiency on Return on Assets

Based on the estimation model used (Random Effect) the coefficient value of the Efficiency or BOPO variable is -0.610061 and the probability value of 0.0000 <0.05 means that Efficiency partially has a negative and significant effect on Return On Assets in Sharia Commercial Banks in Indonesia. This explains that the more efficient a company will increase the company in generating profits or returns on assets owned by the company. This research is in line with previous research [26] which states that Efficiency has a negative and significant effect on Return on Assets.

#### Effect of Finance to Deposit Ratio on Return on Assets

Based on the estimation model used (Random Effect) the coefficient value of the Finance to Deposit Ratio variable is 0.18349 and has a probability value of 0.6339 or > 0.05 meaning that the Finance to Deposit Ratio partially has a positive and insignificant effect on Return On Assets in Sharia Commercial Banks in Indonesia 2012-2017. This explains that the greater the company's ability to manage short-term debt, it will increase the company's ability to generate profits. This research is in line with previous research [11-13] which states that FDR has a positive and insignificant effect on Return on Assets.

#### CONCLUSION

- Efficiency, Finance to Deposit Ratio and Return on Assets in Sharia Commercial Banks in Indonesia in 2012-2017 each year has experienced an increase or decrease in each of the Sharia Commercial Banks each year. Sharia Commercial Banks that have an Efficiency average value calculated using the BOPO ratio throughout 2012-2017 banks included in the Healthy assessment criteria include BRI Syariah, Bank Mandiri Syaria, BNI Syariah and, BCA Sharia, banks that have an average BOPO value in the rating criteria for the Fairness of Bank Muamalat Indonesia, while banks that are included in the criteria for the assessment of Poor Health are Bank Syariah Bukopin, and banks included in Unhealthy assessment criteria are Bank Victoria Syariah and, Bank Panin Dubai

Syariah. Sharia Commercial Banks that have an FDR average value throughout 2012-2017 which are included in the Very Good criteria are Bank Muamalat Indonesia, BRI Syariah, BNI Syariah, Bank Panin Dubai Syariah, Bank Syariah Bukopin and, BCA Syariah, while banks included in the Fairly Good criteria in managing FDR are Bank Victoria Syariah and, Bank Mandiri Syariah. Sharia Commercial Banks that have an average Profitability value calculated using ROA ratios throughout 2012-2017 which are included in the criteria of Good are BNI Syariah, which is included in the criteria for Good Enough is Bank Muamalat Indonesia, BRI Syariah, Bank Mandiri Syariah BCA Syariah, while those included in the criteria of assessment are Poor are Bank Syariah Bukopin and, those that are not good are Bank Victoria Syariah and, Bank Panin Dubai Syariah.

- The partial test results of the Efficiency and Finance to Deposit Ratio variables can be summarized as follows: a). Efficiency measured by Operational Cost indicators on Operating Income (BOPO) partially has a negative and significant effect and, b). Finance to Deposit Ratio (FDR) partially has a positive and insignificant effect on Return On Assets of Sharia Commercial Banks in Indonesia in 2012-2017
- Simultaneous testing results of the Efficiency and Finance to Deposit Ratio variables have a significant effect on Return on Assets in Sharia Commercial Banks in Indonesia in 2012-2017.

#### REFERENCES

1. Keuangan, O. J. (2017). Laporan Perkembangan Keuangan Syariah 2016. *Jakarta. Robinson, D., Perryman, S., & Hayday, S.(2004). The Drivers of Employee Engagement. Brighton: Institute for Employment Studies.*
2. Dendawijaya, L. (2009). *Manajemen Perbankan.* Jakarta: Ghalia Indonesia.
3. Firmansyah, I. (2014). Determinant of non performing loan: The case of islamic bank in indonesia. *Buletin Ekonomi Moneter dan Perbankan, 17(2), 241-258.*
4. Priya, K., & Velnampy, T. (2013). Efficiency and Profitaility: A Case Study of Banking Sector in Sri Lanka. *Global Journal of Management and Business Research Accounting and Auditing, 13(5).*
5. Bolek, M., & Wili'nski, W. (2012). The influence of liquidity on profitability of polish construction sector companies. *E-Finanse: Financial Internet Quarterly, 8(1), 38-52.*
6. Itumo, N. P. (2013). *Relationship Between Efficiency And Financial Performance Of Commercial Banks In Kenya, in Master of Business and Administration.* University of Nairobi.

7. Karim, B. K., Mohamed Sami, B. A., & Hichem, B. K. (2010). Bank-specific, industry-specific and macroeconomic determinants of African Islamic banks' profitability. *International Journal of Business and Management Science*, 3(1), 39.
8. Dawood, U. (2014). Factors Impact Profitability of Commercial Bank in Pakistan. *International Journal of Scientific and Research Publications*, 4(3).
9. Hashem, H. Y. M. (2016). Determinants of Egyptian Banking Sector Profitability: Time-Series Analysis from 2004-2014. *International Journal of Business and Economic Sciences Applied Research (IJBESAR)*, 9(2), 73-78.
10. Abd Karim, M. Z. (2005). Cost efficiency and profitability in Thailand's life insurance industry: a stochastic cost frontier approach. *International journal of applied econometrics and quantitative studies*, 2(4), 19-36.
11. Vieira, R. S. (2010). An Exploratory Study of Airline Companies Between 2005 - 2008.
12. Rehman, M. Z., Khan, M. N., & Khokhar, I. (2015). Investigating liquidity-profitability relationship: Evidence from companies listed in Saudi stock exchange (Tadawul). *Journal of Applied Finance and Banking*, 5(3), 159-173.
13. Durrah, O., Rahman, A. A. A., Jamil, S. A., & Ghafeer, N. A. (2016). Exploring the relationship between liquidity ratios and indicators of financial performance: An analytical study on food industrial companies listed in Amman Bursa. *International Journal of Economics and Financial Issues*, 6(2), 435-441.
14. Shah, P. (2012). *Evaluation of Profitability and Liquidity Relationship Through Multivariate Working Capital Analysis*.
15. Alshatti, A. S. (2014). *The Effect of Liquidity Management on Profitability in Jordanian Commercial Banks*.
16. Rivai, V. (2013). *Manajemen Sumber Daya Manusia Untuk Perusahaan Dari Teori Ke Praktek*. Bandung: Rajagrafindo Persada.
17. Kasmir. (2012). *Analisis Laporan Keuangan*. Jakarta: Rajagrafindo.
18. Sigit, E. A. (2003). *Kamus Besar Ekonomi*. Bandung: Pustaka Grafika.
19. Kusmayadi, D., Firmansyah, I., & Badruzaman, J. (2018). The Impact of Macroeconomic on Nonperforming Loan: Comparison Study at Conventional and Islamic Banking. *Iqtishadia: Jurnal Kajian Ekonomi dan Bisnis Islam STAIN Kudus*, 10(2), 59-82.
20. Kusmayadi, D., Badruzaman, J., & Firmansyah, I. (2017). Efficiency and Profitability of Islamic Bank in Indonesia. *Advance Science Letter*, 23;8807-8812.
21. BI, *Circular Letter of Bank Indonesia No. 6/23/DNDP*.
22. Muhamad. (2005). *Manajemen Dana Bank Syariah*. Yogyakarta: UPP STIM YPKN.
23. BI, *Circular Letter of Bank Indonesia No. 12/11/DNDP*.
24. Widarjono, A. (2007). *Ekonometrika Teori dan Aplikasi untuk Ekonomi dan Bisnis*. 2007, Yogyakarta: Ekonisia.
25. Mulyadi, L. (2007). *Putusan hakim dalam hukum acara pidana: teori, praktik, teknik penyusunan, dan permasalahannya*. Aditya Bakti.
26. Di Pietro, D. O., Nenda, S. J., & Gómez, S. E. (2016). *Philodryas trilineata*.