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STUDY RATIO FINANCIAL OF BANK PERFORMANCE: EVIDENCE FROM INDONESIA

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ABSTRACT

Purpose: This research will examine the effects of CAR, NPF, FDR, BOPO, and NIM on the performance of Bank Muamalat Indonesia using ROA.

Research Methodology: The quantitative method and multiple linear regression analyzes are used in this research, with an analytical technique for the least square equation (OLS). This study used purposeful sampling technique that the use of data from the population represents the entire population, the secondary data was also used in this research, the data used is the financial ratio from The Bank Muamalat Indonesia trimester financial statements from 2009 to 2018.

Findings: The research shows that the multiple regressions model shows a 0.731 R square; this means that 5 independent CAR, NPF, FDR, BOPO, and NIM variables are affected by a 73.1 percent ROA. However, another factor of 26.9 percent was influenced factor outside the model.

Implications. The result of this study is the recommendation for Muamalat Bank to improve their performance effectiveness and efficiency, and also for available research to contribute for the banking literature.

Originality: The bank performance in the assessment study as an explanatory variable can lead to a better understanding of third-party funds management and an important decision-making process for Muamalat Bank management.

1. Introduction

The phenomenon of bank health assessment based on Bank Indonesia version refers to the elements of Capital, Assets Quality, Management, Earning, Liquidity and Sensitivity, this research uses financial ratios widely used to assess bank financial efficiency (Gariba, Amidu, & Coffie, 2018; Bai, Krishnamurthy, & Weymuller, 2018; Riyadi & Santoso, 2018; Le, 2018; Sahyouni & Wang, 2018; Lalwani & Chakraborty, 2017; Bai et al., 2018; Mahmood, Gan, & Nguyen, 2018; Beltrame, Caselli, & Previtali, 2018; Dahir, Mahat, & Ali, 2018; Hoechle, Ruenzi, Schaub, & Schmid, 2018; ;Sun, 2018; Gropp, Mosk, Ongena, & Wix, 2018; Umar, Sun, Shahzad, & Rao, 2018; Danisewicz, McGowan, Onali, & Schaeck, 2017; Rao, 2016; Allahrakha, Cetina, & Munyan, 2018; Horváth, Seidler, & Weill, 2012; Blundell-Wignall & Roulet, 2013). This study did not include the bank management element because this cannot be seen from the outside. The return on assets, which is used in the estimation of the effectiveness of the company in profit generation, has been chosen as the dependent variable. ROA is the profit ratio before tax of total property.

The Return On Assets (ROA) sum indicates that the output business is improving according to the increasing return rate. ROA also multiplies the net margin of income factor and the turnover of properties. The net income margin reflects the opportunity to take advantage of all profits the company produces and the turnover of assets demonstrates how much the company can make sales out of its assets. Banking health evaluation involves capital assessments, asset quality, management, profitability, liquidity, market risk sensitivity, CAMELS. Bank

health and results can be evaluated by financial statements aimed at presenting consumer details in decision-making. Based on the Transparency Regulation on Financial Conditions No. 3/22/PBI/2001 banks are required to produce and produce their financial statements in the form and scope of the following Bank Indonesia Regulation, consisting of: (1) annual report; (2) quarterly financial statements; (3) monthly financial statements; (4) consolidated financial statements; and (5) financial statements, respectively.

If one of them mentioned above is increase (or both), so will ROA, the reason for choosing the banking industry is a need because of bank activities are required for smooth running of real-world economic activities. The real sector would not have performed well if the monetary sector does not work well. Those variables are Capital Adequacy Ratio, Non-Performing Financing, Financing to Deposit Ratio, Operating Costs versus Operating Income, and Net Interest Margin, therefore it is necessary to retest those variables consistency in influencing bank performance. This research investigates variables affecting ROA, including CAR, NPF, FDR, BOPO, NIM. This research replicates three previous studies. Differences between this study and previous research are types of variables used and periodization of data, 2009 to 2018.

LITERATURE REVIEW AND HYPOTHESIS

Islamic Bank

Under Law Number 10 of 1998, Islamic banks are banks working on the basis of sharia principles that include services in payment traffic in their operations. According to Sharia principles Chapter 1 verse 13 of Act 10 of 1998 Banking is an Islamic rule based on an agreement between banks with another party to deposit funds/finance business operations or other practices connected with sharia law (mudaraba), financing on the basis of equity capital musyarakah, the purchase and sale concept for profit products murabahah, Or finance capital goods based on pure leasing without the option ijarah, or the transfer of ownership of the commodities leased from a bank to another party (ijarah wa iqtina).

Financial Accounting Standards Statement number 59 concerning Islamic Banking Accounting that The Islamic Bank is a bank based on partnership, fairness, transparency, and universality and conducting sharia-based banking business. Islamic banks operate based on profit-sharing. Islamic banks do not use interest as a tool for earning income or charging interest on using funds and loans because interest is prohibited usury.

Financing and Financing Products

Sharia funding is money provision and similar claims based contract or arrangement between the Bank of Canada and another Party that requires the financial party to return it after a certain period of time for a profit (Law No. 10 of 1998 concerning Banking, Chapter 1 verse 12). This funding can be divided into:

(1) Productive financing, is financing granted by the bank in context of financing working capital needs. Productive financing is classified into: (a) Working capital financing, is the financing granted by the bank to increase working capital to fulfill needs: (1) increasing production, both quantitatively i.e the amount of production and qualitatively i.e improving the quality or quality of production, and (2) for trade purposes such as export financing, shop financing, suppliers, and so on. (b) Investment financing, is financing granted by banks to companies to be used for investment by buying capital goods, namely goods used to produce other goods or to produce services. The purchase of capital goods is called capital expenditure. (2) Consumptive financing, is funding issued by banks to cater for spending needs that are used to meet needs.

Financing distribution is a business activity that dominates the allocation of bank funds. The fund provides facilities to meet the requirements of parties that require this funding, reaching 70% – 80% of the bank's total volume of business. Islamic banking finance products include: (1) Salam Financing, salam is a contract for the sale of goods ordered with delivery suspension by the seller and the repayment is made immediately before the goods are received in accordance with certain conditions. The characteristics of salam are: (a) Banks in salam transactions can act as buyers and or sellers, if the bank acts as a seller, orders other parties to provide ordered goods in parallel salam with the following conditions: (i) the second contract is separate from the first contract; and (ii) the second contract is made after the first contract is valid. (b) The specifications and prices of the items are agreed at the beginning of the contract. (c) The price of goods cannot be change during the contract period. (d) If the ordered item has a lower market value than the value of the contract, then the bank acknowledges as salam loss, but when the market value is greater than the contract value, then the bank does not recognize the salam profit (because it is assessed according to the contract). (2) Istishna Financing, this is an arrangement between the final customer and the manufacturer who serves as seller as well. The characteristics of istishna are: (a) The buyer assigns the producer to provide order the products in compliance with the requirements required by the purchaser and at the agreed amount, sell them. (b) The payment method can be in form of prepayment, installments or deferred for a specified period. (c) Basically goods price cannot be change during the contract period, unless it is agreed. (3) Qardh receivable, qardh is a funds provision or bills that can be matched by default or Borrower/Lender arrangement that enables the borrower to refund debt within a defined period of time.

The characteristics of Qardh are: (a) Qardh loans are loans that do not require compensation, but borrowers are allowed to provide compensation. (b) Banks may only charge administrative fees. (c) If there is an acceptance of a bonus (bonus) that is not previously required, then it is included as other operating income. (d) If at the end of the period the qardh fund borrower cannot return the funds, then the qardh loan can be extended or written off. (e) Banks may request collateral for the provision of qardh. (4) Hiwalah receivable, hiwalah is a consumer debt transfer contract to the bank. The bank earns an ujroh for this transaction, which is

reimbursed on receipt. Hiwalah receivables are presented at their balance less allowance for possible losses. (5) Rahn receivable, rahn is instead a customer-to-bank transaction to mortgage products or land. Packaged products or properties are priced at retail prices minus a percentage. For this transaction, the bank uses a qardh contract and obtains the ujroh (return) acknowledged upon receipt. Rahn receivables reveal their balance less provision for future losses. (6) Musyarakah Financing, musyarakah shall be a partnership arrangement between the shareholders of the capital (musyarakah partners) to combine capital and company in a partnership, the share of the benefit under the agreement may be continuous and the share of the profit may decrease while the loss is borne proportionally by the contribution capital. Musyarakah permanent is musyarakah whose capital will be reduced gradually until the end of the musyarakah era, because it was purchased by musyarakah partner.

Musyarakah characteristics are: (a) Musyarakah financing may be granted in the form of cash, cash or non-cash property, including inalienable property such as licenses and sharia patents. (b) In musyarakah, each partner cannot guarantee the capital of other partners, so each partner can ask other partners to provide guarantees for negligence or intentional errors. (c) Failures or mistakes from the fund manager are showed as follows: (1) the requirements specified in the contract are not fulfilled; (2) there are no conditions that are normal and / or determined in the contract; and (3) results of decisions from arbitration bodies or courts. (7) Mudharabah Financing, mudharabah is an agreement as an owner between the bank (shahibul maal) and customers as a fund manager (mudharib) to execute operations at a profit/loss ratio in advance under the agreement..

Mudharabah consists of 2 types, are mudharabah muthlaqah (unrestricted investment) and mudharabah muqayyadah (tied investment). The characteristics of mudharabah are: (a) Banks as mudarib (fund managers) are discussed in an unbound investment post. (b) The Bank as an investment agent (chanelling) in mudharabah muqayyadah is discussed in the report on changes in investment in the off balance, while the bank as the party that bears the risk (executing) in mudharabah muqayyadah is discussed in the post of binding investment obligation. (c) Mudharabah financing can be provided in the form of non-cash and or cash which is carried out in stages or at once. (d) Mudharabah financing returns can be made in conjunction with the distribution of profit sharing or at the end of the mudharabah agreement. (e) Mudharabah profit sharing can be done by using 2 methods, namely for profit (profit sharing) and for revenue (revenue sharing). (f) In principle, mudharabah financing is not required for collateral, but in order to avoid moral hazard in the form of irregularities by the fund manager, the fund owner may request collateral from the fund manager or third party.

This collateral will only be charged if the fund manager has proved to breach the contractual agreements. (g) Mudharabah profit or loss recognition in practice can be known based on the profit sharing report from the fund manager received by the bank periodically in accordance with the agreement. (8) Ijarah is a contract of

lease for the rent of the goods on Ma'jur (leasing object) between the mojjir(lessor) and the musta'jir(lessee). Ijarah muntahiyah bittamlik shall be a lease arrangement between the landlord and the tenant that ends with the transfer of the property's ownership rights. The transfer of ownership rights to the rented item in an it's can be achieved by: (a) Grant. (b) Until contract sales expire at a price equal to the other payments. (c) Sales after the end of the lease period with certain payments, agreed at the beginning of the contract. (d) Gradual sales of certain prices agreed in the contract. (9) Murabahah receivables, Murabahah is an agreement of sale of goods specifying the cost and benefit (margin) negotiated between the seller and the buyer.

The characteristics of murabahah include: (a) Murabahah can be done by or without order. In murabahah based on orders, the bank purchases goods after ordering from customer. (b) Murabahah payments can be made in cash or in installments. (c) The Bank can ask the customer to guarantee receivables from murabahah, including goods purchased from the bank. (d) Banks can request advance payments for purchases (urbun) to customers after the murabahah agreement is agreed. (e) If there is an advance in murabahah transactions based on orders, murabahah profits are based on the portion of the price of the goods financed by the bank. (f) If the murabahah transaction is paid in installments or in resilient, then the recognition of the principal portion and profits must be made evenly and regularly throughout the installment period.

Treatment of Murabahah Receivables Based on International Financial Report Standard Number 102

Recognition and Measurement

The recognition and measurement of murabahah receivables based on PSAK Number 102 are as follows: (1) *Urbun* is recognized at the amount received. (2) Murabahah receivables are priced at cost plus negotiated income so at the end of the contract at the realizable value (murabahah receivables less allowance for doubtful accounts). (3) Murabahah profits are recognized in the period in which ends in the same financial statement whereas the contract reaches one financial reporting period, it is recognized proportionally over the contract period. (4) Repayment pieces use two method: (1) given at the time of settlement, the bank reduces murabahah receivables and profits; and (2) given after completion, the bank accepts receivable repayment, then the bank pays a deduction (reducing profits). (5) Fines are recognized as part of social funds (virtue funds) when received.

Presentation by the end Accounting Period

At the end of the accounting period, the presentation of murabahah receivables is as follows: (1) Murabahah receivables are reported at the net amount that can be realized, i.e. the balance of murabahah receivables less allowance for potential loss. (2) The deferred murabah margin is deducted from the receivables of murabahah. The process of procuring murabahah goods (assets) must be carried out by the bank. Murabahah can be done by or without order, in murabahah based

on orders, the bank purchases goods after an order has been made by the customer. Murabahah based on orders can be or not be binding the customers to buy goods ordered.

In a binding order for murabahah the value of Murabahah's properties acquired by a bank (as a seller) decrease until they are passed to the buyer so that impairments become the seller's cost (bank), and the seller (bank) decrease the value of the deal. Payments may be made in cash or in installments. The role of murabahah, must be paid by the customer to the bank, not to the supplier. Urbun becomes a part of murabahah repayment if murabahah is to be carried out (not allowed as an installment payment), however when murabahah is canceled, after loss is deducted according to agreement it will be returned to the customer, among others: (1) Urbun discount by the supplier. (2) Administrative costs. (3) Costs incurred in other procurement processes. The Bank has the right to impose fines on customers who cannot fulfill murabahah debt obligations with these follows indications: (1) The intentional element is that the customer has funds but does not pay murabahah receivables, and (2) There is an element of misuse of funds, is that customers have funds but are used more first for something else.

Murabahah transaction payments are made in installments or respite, so the recognition of the principal and profit portion must be made evenly and regularly throughout the installment period. If the customer makes a smaller installment payment than his obligation, the revenue recognition for the calculation of the distribution of operating results is proportional or proportional to the portion of the margin contained in the installments. According to BI Sharia Banking Development Team, the fundamental difference between Islamic banks and non-sharia banks concerns philosophies, operations, social aspects and organizations. As a financial intermediary, Islamic banking should also perform the collection and channeling of funds in a balanced manner in line with applicable banking regulations, for this reason there must be clarity in the banking operational system.

Credit according to Law Number 7/1992 in conjunction with Law Number 10/1998 Article 1 (11) the provision of money or equivalent claims is the provision of a contract between banks and other parties that requires debtors to pay off their debts with the amount of interest, reward, or profit-sharing after a certain period of time.

Financing

Law No. 7/1992 jo. Law No. 10/1998 article.1 (12) explains That funding is the supply of money or bills that could be equalized on the basis of an arrangement or deal between the bank with that other another party requiring the supported party to return or bill until a certain period of compensation or profit-sharing. The distinction between the loans issued by non-sharia banks and the funding offered by sharia-based banks lies in the expected income. Rivai (2010: 92) states that the elements contained in credit can be classified into four, namely: (1) Trust; (2)

Time; (3) Achievement; (4) Risk. The willingness of banks to provide credit / financing will involve various elements as follows (Guza, 2008): (1) Customer as debtor and the Bank as creditor; (2) Trust, namely the confidence of the bank that credit or financing provided can return; (3) The time between receipt of credit / financing and repayment is clear; (4) Awareness of risks in providing risks; (5) Achievement, namely the form of credit / financing provided in the form of money or remuneration; (6) Cons of achievement, that is a value of achievement given by the recipient of credit / financing and that will be received by the party providing the credit / financing in return or profit results within a certain period, which is generally in the form of money.

Interest in non-sharia banking or profit sharing in terms of Islamic banking. Financing can be divided into the following two things according to the nature of its use (Antonio, 1992: 160): Productive financing is that funding aimed at meeting the needs of production in a broad sense, which is to increase production, trade, investment, and financing. Consumptive, namely funding needed to meet consumption needs.According to its requirements, productive financing can be divided into the following two things (Antonio, 1992: 161-168): (1) Financing of working capital consisting of liquidity financing, financing of receivables, inventory financing, working capital financing for trade (general trading and trading based on order). (2) Investment financing.

Types of credit can be seen from various aspects (Kasmir, 2008: 76): (1) In terms of usability, that are investment credit and working capital credit; (2) Seen in terms of credit objectives, that are productive credit, consumer credit, and trade credit; (3) In terms of time period, are short, medium and long term credit; (4) In terms of guarantees, are loans with collateral and unsecured credit; (5) In terms of business sector, are agriculture, livestock, industry, mining, education, profession and housing credit. The provision of credit or financing, each bank is very careful so that the funds disbursed can be used as they should be, and can produce a return (return) in the form of interest or a clear profit sharing, for that the bank before deciding credit / financing is always conduct an analysis of prospective borrowers known as the 5C principle, that are character, capacity, capital, collateral, and condition. According to Guza (2008: 64), to see the internal condition of a company or prospective debtor, usually the bank refers to the company's financial statements.

Financial statements are the main way for a company to deliver accounting information to other party. The information submitted by accounting is financial information from a company that can be used by the user for economic decision making, if a grouping of information about prospective borrowers is needed in making financing decisions, it will consist of: accounting information, such as total assets, liquidity, solvency, earnings before tax, earnings after tax, and so forth and non-accounting information including increases in net sales, company history, experience of leaders, business diversification, business class, financial sector financed, guarantees, purpose of credit usage, and credit period.

The entire information above are external information of the bank, which means that it only comes from the customer. Whereas in making a financing decision, the bank's internal information factors must also be taken into account. Some of the bank's internal factors affecting the credit / financing process are CAR-(Capital Adequacy Ratio), RWA-(Risk Weighted Assets), Financing to Deposit Ratio (FDR), Net Open Ratio (NOR), Maximum Legal Lending Limit (LLL) , percentage of achievement of KUK (Guza, 2008: 101). All information The financial report is a very important information source to know and analyze the financial conditions of the company that will come.

A business history report provides a foundation for making future projections and forecasts and business and economic analysis. The Indonesian Accounting Association (2004: 2) notes that the reporting process involves financial statements. A completed report typically consists of the balance sheet, the income statement, the change of financial position statement, other notes and reports, and explanatory material, an integral component of the financial statements (for example, a cash flow report or a fund flow statement). The financial ratios and their analysis can be known based on financial statements. Financial ratios describe a mathematical relationship with a certain amount and using this analytical tool as a ratio. They can explain or give the analyst an overview of the good and the bad financial condition or the company, particularly when the ratio is compared with the rate of comparison used as a standard (Suyatno, 2005: 64). Financial ratio evaluation is financial analysis to determine, both individually and simultaneously, the relationship between certain items in the balance sheets and the returns (Yahya, 2009: 123). Each formed financial ratio has the objectives to be achieved respectively, this means there are no clear and firm limits on how many ratios are found in each aspect analyzed, but the most significant for thing in using financial ratios is to knowledge the purpose of using financial ratios themselves.

Banking Performance

Fundamentally, a company's financial success is achieved by using the company's current resources as efficiently and effectively as possible to achieve the management goals and banking performance as well as by managing its resources as effectively and effectively as possible to achieve its objectives.

Assessment of banking performance is very important due to sensitivity of banking operation to the economic progress of a country (Nasser, 2003). An analysis of the financial ratio can measure the efficiency of banks. Bank Soundness of the bank is governed in Circular No.6/23/DPNP of the Bank of Indonesia 31 April 2004 by all commercial banks carrying on a traditional rating system process and by Regulation Number 6/10/PBI 2004 of the Bank on the rating system of commercial banks of the Bank of Indonesia dated 12 April 2004, banks are required to conduct quarterly bank soundness assessments in March, June, September and December.

Bank Indonesia requests the results of bank soundness assessment periodically and at any time for the assessment position, especially to test the accuracy and adequacy the bank analysis result. The bank health assessment must be concluded within one month of the examination or within the time defined by the supervisor of a related bank. The bank soundness assessment includes assessing capital factors, management, asset quality, liquidity, profitability, sensitivity to place/market risk.

Banking Financial Report

The financial position statement is a cash flow statement that divides cash flows into three categories, those are operating, investment and funding cash flows. The cash flow statement is regulated in accordance with PSAK Number 2 concerning the cash flow statement. The notes of financial statements must explain the main financial statement items and notes on foreign exchange positions by type of currency and its activities, such as trustee, custodianship activities, and managed loans. According to Bank Indonesia regulations, each bank must present financial statements as mentioned above, each bank is required to submit several other types of reports to be submitted to BI.

Other reports include: (1) Weekly Reports (a) Statutory Reserves which include, third party rupiah / foreign currency per bank funds and positions of certain rupiah balance sheets and foreign currency per bank. (b) Reports on profits / losses on derivative transactions. (c) Report on net open position (NOP). (2) Monthly Reports (a) Reports with attachments per office (LBU). (b) Reports of commercial bank loans per office (LPBU). (c) Report on violation of the maximum credit limit (LLL). (3) Quarterly Report, Document on bank credit accomplishment of the bank's work plan. (4) Semester Report (a) Report of commissioners board about the implementation of the bank's work plan. (b) Financial reports of publications in Indonesian newspapers. (c) Audit board report on the results of internal audit performance that has been carried out. (5) Annual Report (a) An annual report audited by a public accountant registered with BI accompanied by a commentary from a public accountant. (b) Report on achievement of the bank's work plan. (6) Other Reports (a) Derivative transaction losses that exceed 10% of bank capital and actions to be taken to resolve at the latest on the following business day. (b) A special report regarding each audit finding that is expected to interfere with the continuity the bank's company signed by president directors and chairman no later than 15 working days after the audit results. (c) Reports on any misuse carried out through information system technology. (d) President director and the chairman of Financial statements are intended to provide information about the financial condition, results and adjustments in the financial position of a company, which are useful for decisions. Because many parties put their interest to financial statements, so these financial statements must be structured in such a way as to meet the needs of all parties who need it.

Banking Financial Ratio Analysis

The analysis of financial ratios provides an overview of the financial and financial situation. Analysis of financial ratios helps managers determine the financial outcomes for future planning and internal analyzes to determine lending and investment policies for creditors and investors. The relationship analysis is one of the most widely utilized financial analytical instruments, and the ratios are tools for considering the underlying conditions. The properly interpreted ratio identifies areas that need further research. Ratio analyses can disclose significant relationships and serve as a basis for comparing conditions and trends that are difficult for each ratio component to be recognized. Future-oriented analysis of ratios is most helpful, which means that we often adopt factors affecting the ratio to possible trends and their future size. Factors that could affect future ratios must also be evaluated as the ratio depends on expertise and interpretation.

RWA is calculated from assets listed in the balance sheet and administrative assets (not listed in the balance sheet), with each item in the asset given a risk weight whose amount is based on the level of risk contained in the asset or class of customers or collateral properties (Dunil, 2005) Guided by SE Bank Indonesia Number 26/1 / BPPP dated May 29, 1993 corrected a number of assets with Bank Indonesia Circular Number 2/12 / DPNP / dated June 12, 2000 as follows: is the net after the loan balance is reduced by the allowance for Earning Assets Losses (PPAP). Especially for restructured loans and obtaining guarantees from IBRA (Indonesian Bank Restructuring Agency) the risk is considered to be 0% (zero).

Return On Assets (ROA)

ROA is the opportunity to make capital gains invested in all corporate assets. The greater the profit generated, the greater the ROA, the higher the profit generated by ROA, the more effectively the company uses assets to generate profit. The ROA is based on a comparison of revenues before tax and average total assets, and the ROA is used as a performance indicator for the banking industry. ROA illustrates the company's efficiency by optimizing its assets in profit generation; the higher the ROA, the more effective the company is because the ROA level influences its profit. (Gariba et al., 2018; Bai et al., 2018; Riyadi & Santoso, 2018; Le, 2018; Sahyouni & Wang, 2018; Lalwani & Chakraborty, 2017; Bai et al., 2018; Mahmood et al., 2018; Beltrame, Caselli, & Previtali, 2018; Dahir et al., 2018; Hoechle et al., 2018; Lestari, 2018; Sun, 2018; Gropp et al., 2018; Umar et al., 2018; Danisewicz et al., 2017; Rao, 2016; Allahrakha et al., 2018; Horváth et al., 2012; Blundell-Wignall & Roulet, 2013).

Performance informaton is very useful for financial statements users. For groups of investors, creditors and the general public, they want their investment which invested in the bank to know the performance of the bank. Returns on capital investment useful when evaluating, analyzing profitability, predicting profits, and planning and controlling management. For that purpose, it is necessary to understand the size of that return in depth when using capital investment. The returnable measure includes the components that are likely to help the company

understand its performance. Banks with relatively large total assets will perform better. as the total income from increased product sales is relatively large and will increase business profits with increasing overall sales, so that financial performance is improved (Juanamasta et al., 2019; Prabowo, Rochmatulaili, Rusdiyanto, & Sulistyowati, 2020; Rusdiyanto, Agustia, Soetedjo, & Septiarini, 2020; Rusdiyanto, Hidayat, et al., 2020).

Effect of CAR on ROA

CAR represents a ratio or comparison of bank capital to risk-weighted assets. CAR is the banking guideline to expand the distribution area of funds, in practice the calculation of CAR by Bank Indonesia is called the Bank's Minimum Capital Requirement (KPMM) is not simple. KPMM is a comparison between Capital with Weighted Assets by Risk (ATMR), both ATMR and Bank Capital require details and similarity in what understanding is entered as a component to calculate ATMR and how to calculate it menghitungnya (Zaremba, 2016), (Abdul Hadi, Hussain, Suryanto, & Yap, 2018), (Lyngstadaas & Berg, 2016), (Al-Shattarat, Al-Shattarat, & Hamed, 2009), (Hidayat, Sadalia, & Fachrudin, 2018), (Yudha, Chabachib, Rini, & Pangestuti, 2017), (Devi & Firmansyah, 2018), (Poerwanti & Kartika, 2018), (Irawan Noor & Rosyid, 2018).

It is necessary to specify what can be classified and counted as Bank Capital. Instructions on this matter are regulated by Bank Indonesia through the provisions of SE BI Number 26/1/BPPP May 29, 1993. Regarding definition and details of capital consisting of Core Capital and Supplementary Capital, Bank Indonesia made improvements through its letter dated December 14, 2001, through Bank Indonesia Circular Letter No. 3/30/DPNP, based on the previous provisions as follows (Dunil, 2005): (a) Calculation of earnings does not include profit recognition because of the application of Statement of Financial Accounting Standards (PSAK) Number 46 concerning Accounting for Income Tax. (b) The component of paid-in capital does not include recognition of the capital ordered originating from the receivables from the Shareholders as stipulated in the Statement of Financial Accounting Standards (PSAK) Number 21 concerning equity accounting. (c) Capital deposit funds are funds that have been fully paid for the purpose of additional capital but have not been supported by the completeness of the requirements to be classified as paid-in capital such as the Shareholders' General Meeting and the ratification of the articles of association from the authorized agency. To be classified as a Capital Deposit Fund, the fund must be placed in a special account (escrow account) and its use must be with the approval of Bank Indonesia. (d) Revaluation of Fixed Assets cannot be capitalized into paid up capital and distributed as bonus shares and or dividends. (e) Lack of Establishment of Allowance for Earning Asset Losses by the Bank is a component of costs for current year's profit. (f) The component of last year's and current year's profit is the amount after tax estimated, except if the Bank is allowed to compensate for losses in accordance with the applicable tax provisions. (g) An increase or decrease in the price of shares in an available-for-sale portfolio is the

difference between the market price and the acquisition value of the Bank's investment in a company whose shares are listed in the Capital Market.

Bank capital is the "engine" of the bank's activities, if the engine capacity is limited, it is difficult for the bank to increase the capacity of its business activities, especially in financing distribution. It is expected that in 2011 all commercial banks operating have a minimum capital of Rp. 100 billion. CAR below 8% does not have the opportunity to provide financing. The main activity of the bank is to collect funds and redistribute them in the form of financing, with sufficient CAR or fulfill the provisions, bank can operate so and gain the profit. Optimal financing disbursement, assuming that there is no obstacle will increase profits which will ultimately increase ROA.

The amount of funds of the bank will influence the public confidence in the performance of the bank. Research results from Mawardi (2005) show that the CAR has no impact on ROA, a proxy for business banks' financial performance because bank regulation in Indonesia requires a CAR of at least 8%, making banking institutions constantly striving to keep CAR in line with the regulations. The causes of capital erosion are due to negative spreads and increases in assets that are not offset by additional capital. The low CAR causes a decline in public confidence which in turn can reduce profitability. This study shows that the CAR has a positive effect on ROA, which is a proxy of the bank's financial performance.

H_1: Capital Adequacy Ratio has a positive effect on Return on Assets.

Effect of NPF on ROA

NPF is a debtor or debtor group that falls into groups 3, 4, 5 of five categories of financing collectability, namely debtors who are substandard, doubtful and loss, should always be remembered that the change in financing from the current financing to NPF is gradually through a process of reducing the quality of financing. The emergence of non-performing financing (NPF) is one of the risks of increasingly complex banking practices. The greater the scale of a bank's operations, the aspect of monitoring decreases so that the NPF or the risk of finance increases. NPF is the ratio of incomplete financing to total funding. A good NPF is NPF, which is less than 5%. The NPF reflects the risk to finance; the smaller the NPF, the smaller the risk to finance the bank takes. Banks with high NPF will increase the cost of both earning assets and other costs, and increase the potential for bank losses.

Banks need to set aside some of the bank's income to be on guard so that they can cover losses that will arise if one day the financing provided by the bank turns out to be congested. At the time when there is a non-performing financing, the bank can remove the non-performing financing from the bookkeeping of the income expense that has been set aside. Allowance for NPF reserve formation must be carried out based on established rules, in Financial Accounting Standards (Number 31), the Reserves referred to as "Allowance for Credit Elimination" or

PPK, and the presentation in the balance sheet is as an "offsetting account" which appears as a deduction from the amount credit given to bank assets. The term used by Bank Indonesia is "Allowance for Earning Assets Losses" or PPAP. The difference is that PPAP includes reserves for securities which also become Bank Earning Assets, which in addition to generating, also contain the risk of possible uncollectible traffic jams while PPK only reserves credit only. Formation of reserves is carried out from the first year the bank operates and provides credit, calculated from the debit tray at the end of the accounting period, the end of the month for the monthly balance sheet position and the end of the year for the year-end balance sheet position.

The total debit balance is the realization of the total financing commitment that has been signed by the bank with its debtors. Because initially all financing is Current Financing, PPAP is calculated as a certain percentage of the total debit balance. Then if financing develops and there is a Substandard, then the Substandard needs to set aside a larger PPAP, and so on so that for financing that has been classified as Loss Financing, the PPAP set aside is 100% of the stuck debit balance. Bad debts that have been written off are no longer included in the NPF category, because they are no longer financing. The handling is only in the framework of how to strive for the bad financing to return, especially with the execution of existing collateral. Financing that already has a sign towards NPF that requires attention so as not to get worse or bring greater losses is financing that is still in the classification of DPK (In Special Attention), to find ways to improve the debtor's DPK position must be studied one by one the problems faced by the debtor and treatment is carried out according to the conditions of each debtor. Against financing that leads to NPF even NPF financing itself can be applied to several restructuring techniques so that the debtor can rise again (Dunil, 2005):

Rescheduling

The bank can reschedule in the form, extend the repayment period, give a longer grace period, reduce the amount of financing installments, with this scheduling the customer has more time to breathe and a sufficient period of time to accumulate profits and improve its position so that it can meet the new schedule set . This rescheduling is carried out with certain requirements, among others, the customer's business is still running, the income before interest charging is still positive. The inability of the customer to carry out repayment solely because of the situation outside the control (authority) of the debtor in question. Customers are still in good faith and cooperative.

Reconditioning

Reconditioning is intended to improve the condition of customers, who were initially burdened with heavy financing requirements, reduced so that they are more suitable for customers' needs. Reducing interest rates, reducing credit / financing from other parties whose interest / margins are high and replacing them

with financing from banks with lower interest rates, increasing working capital if according to bank calculations it turns out to be lacking. Providing management consultations or advice so that companies can run better and be able to increase sales, profits and be able to complete their financing within the stipulated period.

Restructuring

If the two methods above are not expected to be able to restore the company to health and will not be able to repay bank financing, the last method can be taken by restructuring the company more fundamentally, in this case changes in the composition of capital can be made, by Debt to Equity Ratio, by adding capital (participation of banks and from outside), increasing financing, extending the time period, reducing the interest rate / margin, changing management (placing bank staff in companies for certain positions) increasing efficiency and so on. The capital participation step is intended so that the debtor does not need to pay interest / margin on a portion of the debt transferred to the bank's capital participation, after the company is healthy and its financial capacity is better, the bank can resell the shares it controls to the old shareholders with certain premiums, so if successful , the bank is protected from financing congestion. NPF is a comparison of total problem financing compared to total financing provided by third parties. In Mawardi's research (2005), NPF is a proxy of financing risk contained in published financial statements. Banks can run their operations well if they have NPF below 5%. The higher NPF causes the existing reserve allowance for Earning Assets (PPAP) is insufficient so that the financing bottleneck must be calculated as an expense (cost) that directly affects the bank's profit and because profits or accumulated profits are also exhausted, it must be charged to capital (Ono, Aoki, Nishioka, Shintani, & Yasui, 2018), (Sakti & Mohamad, 2018), (Abedifar, Molyneux, & Tarazi, 2015), (Ozili, 2017), (Bikker & Vervliet, 2018), (Jiménez, Moral-Benito, & Vegas, 2018), (Cui, Geobey, Weber, & Lin, 2018), (Liu, Alexander, & Anwar, 2018), (Viet-Dung Tran, Hassan, & Houston, 2018), (Kustina, Dewi, Prena, & Utari, 2018), (Dunil, 2005).

The increase in NPF resulted in decreased profits so ROA became smaller, the higher the NPF, the lower the bank's performance, and vice versa. Mawardi's research (2005) supports NPF's influence on ROA, which shows that NPF has a negative impact on ROA, meaning any increase in NPF will result in a decrease in ROA. According to him this happened because of the Bank Indonesia regulation regarding NPF regulating that any increase in outstanding loans provided must be covered with a reserve of earning assets by debiting the earning assets reserve account and crediting the productive assets write-offs, so that any increase in outstanding loans will be increase the cost of earning assets which ultimately affects the ROA of the bank. The results of the above research indicate that NPF has a negative impact on ROA, which means that any increase in the number of NPF will lead to a decrease in ROA.

H_2: Non Performing Financing has a negative effect on Return on Assets.

Effect of FDR on ROA

FDR is a calculation that compares a bank's ability to fulfill financial obligations. This responsibility is in the form of call money to be met while a clearing obligation occurs, where the fulfillment is carried out from the company's current assets. FDR is calculated from the comparison between total financing and third party funds. Financing for third parties is the overall support in doubt (not including financing to other banks). The funds referred to include loans, investments, and time deposits on-demand from third parties (not including interbank). The best standard of FDR is above 85%. To be able to obtain the optimum FDR, the bank must maintain the NPF. FDR affects the Earning After Tax (EAT), if the FDR is large then the EAT is large. FDR depends on bank management. The size of the bank's FDR is not the same. The relationship between FDR and EAT is free, not autocorrelated. The greater the FDR, the greater the potential for achieving EAT, as long as NPF can be reduced.

The increase in FDR means that the distribution of financing funds is getting bigger so that profits will increase, the increase in profits will lead to higher bank performance as measured by ROA. A successful FDR level is 85 to 110 percent, so management must be able to handle the funds raised from the group and then be redistributed as funding. The theory's reasoning is supported by research results (Yusuf & Ekundayo, 2017), (Lopez, Rose, & Spiegel, 2018), (Repousis, 2015), (Platonova, Asutay, Dixon, & Mohammad, 2018), (Ofoeda, Abor, & Adjasi, 2012), (Guiso, Sapienza, & Zingales, 2013), (Diaw & Mbow, 2011), (Heider, Saidi, & Schepens, 2017), (Salah & Fedhila, 2014), Mawardi (2005) stating that partially the FDR variable has a positive with ROA impact. The higher the FDR to some degree, the more funds are allocated in funding, the higher the interest income/margin, the more ROA. Mawardi (2005) notes that a rise in FDR is potentially due to increased community funding or withdrawal. This may impact bank liquidity affecting the level of public confidence; the above findings suggest that FDR has a positive effect on bank ROA.

H_3: Financing To Deposit Ratio affects Return on Assets.

Effect of BOPO on ROA

BOPO is a cost-to-operating income ratio. Operating costs are the bank's expense to carry out business operations, such as interest costs, marketing costs, labor costs, and other operating costs. The bank's primary revenue is operating income; it is generated by lending and other operating income from fund investments, and the smaller the BOPO indicates, the greater its effective operations. A safe BOPO ratio is below one; otherwise or more one would be a less healthy bank. According to Bank Indonesia provisions, BOPO is operational performance. Operational productivity also impacts bank profitability and shows that the Bank has appropriately and successfully used all its production factors.

Tumwine, Sejjaaka, Bbaale, & Kamukama, (2018), Tumwine, Sejjaaka, Bbaale, & Kamukama, (2017), Padavano, (2005), (Lee & Isa, 2017), (Chen, Hung, & Wang,

2017), (Bougatef & Korbi, 2018), (Ab-Rahim & Chiang, 2016), (Muritala, 2012), (Innocenti, Fiordelisi, Girardone, & Radić, 2018), (Mawardi, 2005) explains that the BOPO variable is most dominant and reliable in affecting ROA. Further, BOPO is a variable that can distinguish between banks with above-average ROA or with below-average ROA, so controlling bank operations that are successful by minimizing operating costs can seriously influence bank returns as an indicator of profitability by using the full assets of the business.

The study also shows that efficiency affects ROA. In accordance with the logic of the theory which states that bank efficiency can be achieved in several ways, one of them is by increasing operating income by reducing operating costs, or with the same operating costs will be able to increase operating income, which in turn will increase bank profits and finally can increase ROA. The results also show that the greater the ratio of total operating costs to operating income the smaller the ROA, thus operating efficiency proxied by BOPO has a negative effect on the performance of the bank proxied by ROA.
H_4: Operational Efficiency Ratio (BOPO) affect Return On Assets.

Effect of NIM on ROA

NIM refers to net interest payments on gross income. Net interest earnings are derived from lower interest earnings. Effective assets are measured as assets generating interest (interest-bearing assets). It is specified that productive assets comprise bank funds distribution in the form of lends, bonds, interbank placements, acceptance bills, deposits, administrative transfers, securities bills purchased under reverse repurchase agreements, derivative receivables, etc. Therefore the prohibition of the quality of assets for commercial banks is given in compliance with the Indonesian Bank Regulation No 7/2/PBI/2005.

NIM are strongly influenced by changes in interest rates and the quality of earning assets. Banks must be vigilant to ensure that finance is preserved so that the quality of income assets will improve net interest incomes with good financial quality so that the earnings of the bank are eventually affected. High net interest income will increase profit before tax, so that ROA increases. The foregoing is supported by the results of the study (Fadiran, 2014), (ElKelish & Tucker, 2015), (Dhar Bakshi, A., 2015), (Bougatef, 2017), (Drechsler, Savov, & Schnabl, 2017), (Apergis, Keung, & Lau, 2017), (Al-muharrami & Murthy, 2017), (English, Heuvel†, & Zakrajsek, 2012), (Ahmed, 2018), (Doyran, 2013), (Ben Salah Mahdi & Boujelbène Abbes, 2018), (Tumwine et al., 2017), (Lopez et al., 2018), Mawardi (2005) which shows that NIM is having a positive impact on ROA. This is because any increase in net interest income that constitutes the difference between the overall interest rate and the total interest income results in an increase in profit before tax, which in turn leads to an increase in ROA. The results of these studies show that NIM affects ROA positively. Any rise in NIM would result in increased ROA. This is because any increase in net interest income, this is the difference between the gross and total interest rate revenues, results in an increase in profit before tax.

H_5: Net Interest Margin affects Return on Assets

RESEARCH METHODS

This study used a quantitative method. Sugiyono (2010:13) described quantitatively as a population- or sample-specific testing process. Typically, the sampling method uses random sampling, a data collection research tool, and the data analysis has quantitative or statistical characteristics that test the hypothesis.

Data Collecting Procedure

The population magnitude applied to the study also needs to be identified to learn about the test sample. The populace consists of objects/subjects with a certain amount and characteristics that the researcher detects and then conclusions are drawn (Sugiyono, 2010: 55). The population used in this analysis is Bank Muamalat Indonesia's quarterly financial statements since its foundation.

The sample of the population number and characteristics (Sugiyono, 2010: 56). In deciding the samples, the analysis process is a purposeful sampling. This approach is a method of choosing samples based on such considerations, such that only samples that currently follow the criterion can be sampled. Based on data available on the Bank Muamalat Indonesia website, financial records are available from 2001 to 2010, so this analysis's sample is Bank Muamalat Indonesia's 2009-2018 quarterly financial statements.

All the data source requirements are obtained from the Bank Mualamat Indonesia website at www.muamalatbank.com. It is carried out by non-participant observation, but recording or copying the data listed on the Bank Muamalat Indonesia website which is used as a sample that is relevant to the problem to be discussed.

Data Analysis Technique

Normality Test

The normality test is used to see if a data follows a normal distribution or to see if it follows a normal distribution using different methods, including Kolmogorov Smirnov. Guidelines in making decisions whether a data distribution follows a normal distribution are: (1) If the value is significant (the value of profitability) <5% then the distribution is not normal. (2) If the value is significant (the value of profitability)> 5% then the distribution is normal. One statistical test that can be used to normalize a data is an outlier test. Outlier data is data that is significantly different from other data. Outlier data can occur for several reasons, namely: (1) Errors in data entry, (2) Errors in sampling, and (3) Indeed there are extreme data that cannot be avoided.

By determining a threshold value known as outlires, outliers may be defined by converting the value of the study data into a standard score or z-score with a zero medium value and a standard difference. Z-score formula:

$$z = \frac{x - \overline{X}}{\sigma}$$

Where :

x = Data Value

$\overline{X}$ = Mean Value

σ = Standard deviation

A data is categorized as outlier data, if the z value obtained is greater than the number +2.50 or smaller than the number -2.50. This means that all data values are normal or if the data varies from the average, the variation is still within normal limits.

Multiple Linear Regression

On the basis of the problems and in accordance with the hypothesis formulated, the analytical tool used is multiple linear regression analyze with the least squares equation (OLS). The model form used from the basic model of determining ROA is as follows:

ROA = a + b_1CAR + b_2NPF+ b_3FDR + b_4BOPO + b_5NIM + e

The size of the constant is shown by 'a and the size of each independent variable's regression coefficient is shown by b1, b2, b3, B4 and b5

Classic Assumption Testing

The data used here is secondary data, so to assess the model's accuracy, certain classic assumptions underlying the regression model must be checked. The classic assumption tests used in this analysis include multicollinearity, heteroscedasticity, and autocorrelation tests, which can be explained in detail as follows:

1. *Multicollinearity test*

   The aim of multi-linearity tests is to assess whether a correlation has been identified between independent variables in the model of regression. A successful model of regression does not refer to separate variables.The value of tolerance and its contrary inflation factor also shows multilinearity, according to Ghozali (2005: 63) (VIF). These two measurements illustrate what of these independent variables other independent variables are explained in the simple sense that Each separate variable turns into a dependent variable, Returns to other variables of independence. Such independent variables cannot justify the variability of the chosen independent variables. Therefore a low tolerance is equivalent to a high VIF (as VIF = 1/tolerance) which shows high collinearity. The normal cut-off value is greater than 0.10 or less than 10, which is the VIF value. The degree of collinearity still appropriate has to be decided by each study.

2. *Heterokedasticity test*

   A heteroscedasticity test aims to decide if a discrepancy between residual observation and residual observation is found in the regression modell. If there is a deviation from residual observation, homoscedasticity is named. No homoscedasticity or heteroscedastic is a strong regression model. The Glejser test used to detect heteroscedasticity reduces the absolute residual value to the independent variable (Ghozali, 2005: 72)

3. *Autocorrelation test*

The autocorrelation test is to check if a linear regression model correlates mistakes in period t to mistakes in period t-1 (earlier). The Box-Pierce and Ljung Box tests for autocorrelation in the regression model (Ghozali, 2005: 67).

Criteria for the presence or absence of autocorrelation are if there is a significant number of lags of more than two, then autocorrelation is said to occur. If there is a significant lag of two or less than two, then there is no autocorrelation (Ghozali, 2005: 68)

Hypothesis test

Sample regression model accuracy can be calculated by fitness goodness in predicting the actual value. Statistically, this can be calculated by coefficient of determination, F statistical value and t statistical value. If the statistical test value is in a critical area, Statistical estimation is statistically important (the area where H0 is rejected). On the contrary, the statistical test value in the area where H_0 is received is not significant (Ghozali, 2005).

a. *Coefficient of Determination* (R2)

Basically, the determination coefficient (R2) tests the model's capacity to describe the dependence of the variable. 0-1 Determination coefficient. A small R2 value implies the limited ability to describe dependent variability of independent variables. A near-one value means that nearly all the information needed to predict variable dependence is available for independent variables. Due to the large variation between each observation, the determination coefficient for cross-data is generally relatively small, while data for time series usually has a high determination coefficient (Ghozali, 2005).

b. *F-test*

The statistical F-test basically shows whether all independent or free variables included in the model have simultant influence on the dependent variable. Or to test the suitability of the multiple linear regression models produced

H_0 : $b_1 = b_2 = ...=b_k = 0$

H_a : $b_1 \neq b_2 \neq .....\neq b_k \neq 0$

In order to test the above hypothesis, stat F is used with the parameters for decision-making: (a) If the amount is relevant (p-value)> 0.05, then H0 will be approved by Ha. (b) Where the level is substantial (p - value) 5 0.05, H0 shall be rejected by Ha.

c. *t test*

Statistical tests basically show how far an individual explanatory/independent variable influences the dependent variable variation.

H_0 : $b_1 = 0$

H_a : $b_1 \neq 0$

The following decision-making criteria are used to test this hypothesis: (a) If the level is significant p-value) > 0.05, Ha is rejected, and H0 is accepted, (B) If the level is 0.05 (p-value), then Ha accepted, and H0 is rejected

RESULTS

Description of Research Variables

In this study using a sample ratio of the financial statements of Bank Muamalat Indonesia in 2001 to 2010, as for the description of the research variables used are as follows:

Capital Adequacy Ratio (CAR)

	N	Minimum	Maximum	Mean	Std. Deviation
CAR (X1)	40	8.01	19.34	12.5325	2.78029
Valid N (Listwise	40				

Based results of the analysis, the standard deviation of Capital Adequacy Ratio (CAR) in 2009 to 2018 amounted to 2.78029% with an average value of CAR of 12.5325% and this value is far greater than the CAR value required, namely 8%, and the highest ratio value occurred in 2003 in September with a CAR ratio of 19.34% while the lowest CAR value occurred in the 2009 period of March at 8.01%

Non Performing Financing (NPF)

	N	Minimum	Maximum	Mean	Std. Deviation
NPF (X2)	40	1.33	17.48	4.5838	3.49587
Valid N (Listwise	40				

Based results of the analysis, the standard deviation of the Capital Adequacy Ratio (CAR) from 2009 to 2018 amounted to 2,78029 percent with an average CAR value of 12,5325 percent. This value is much higher than the required CAR value, namely 8 percent, and it can be seen that the highest ratio value occurred in September 2003 with a CAR ratio of 19.34 percent whilst.

Financing To Deposit Ratio (FDR)

	N	Minimum	Maximum	Mean	Std. Deviation
FDR (X3)	40	73.22	115.95	93.3128	9.82531
Valid N (Listwise	40				

Based results of the analysis, the standard deviation of Financing To Deposit Ratio (FDR) from 2009 to 2018 was 9.82531% with an average value of NPF of 93.3128%. This indicates that there was a significant financing gap during this period, and it was seen that the highest ratio was in 2004 in June with the FDR ratio of 115.95% while the lowest FDR value was in the September 2011 period of 73.22%.

Operational Efficiency Ratio (BOPO)

	N	Minimum	Maximum	Mean	Std. Deviation
OER (X4)	40	75.76	96.97	85.0530	5.61252
Valid N (Listwise	40				

Based results of the analysis, you can see that the standard deviation of Operational Efficiency Ratio (BOPO) in 2009 to 2018 amounted to 5.61252% with an average value of BOPO of 85.0530%. It was seen that the highest BOPO ratio occurred at in 2001 in June with a BOPO ratio of 96.97% while the lowest BOPO value occurred in the March 2015 period of 75.76%.

Net Interest Margin (NIM)

	N	Minimum	Maximum	Mean	Std. Deviation
NIM (X5)	40	5.15	13.87	7.1163	1.53422
Valid N (Listwise	40				

Based results of the analysis, you can see that the standard deviation of Net Interest Margin (NIM) from 2009 to 2018 was 1.53422% with an average value of NIM of 7.1163%, and the highest ratio value occurred in 2007 in June with the NIM ratio of 13.87%, while the lowest NIM value occurred in the December 2017 period of 5.15%.

Return on Assets (ROA)

	N	Minimum	Maximum	Mean	Std. Deviation
ROA (Y)	40	45	4.01	2.1000	82663
Valid N (Listwise	40				

Based results of the analysis, you can see that the standard deviation of Return On Assets (ROA) in 2009 to 2018 amounted to 0.82663% With average ROA value of 2.1%, as well as the highest ROA ratio, occurred in 2001 in December with a ROA ratio of 4.1% while the lowest ROA value occurred in the December 2017 period of 0.45 percent.

Data Analysis Results

Normality Test and Outlier Test

A normality test to evaluate the normal or not distributed distribution of the regression model, the dependent and independent variable. To determine whether or not the data distribution is normal, many techniques can be used to test normality, including the Kolmogorov Smirnov Test. Based on research results, the variables CAR, FDR, BOPO, NIM, and ROA are normally distributed because the significant level produced is more than 5% (sig>0.05). While the NPF variable is not normally distributed, because the significant level produced is less than 5% (sig <0.05). One statistical test that can be used to normalize a data is an outlier test. An observation is said to be an outlier if the zscore is ± 2.50 (Santoso, 2002: 26). Based on the results of descriptive statistics shows that the NPF and NIM variables have outlier data, because the resulting z-score exceeds ± 2.50 which can be seen in the minimum or maximum column. Observations categorized as outliers in NPF and NIM variables are as follows: (1) The 1st observation on the NPF variable is 2001 in March with a zscore value of 3.68899. (Attachment 3) (2) The 2nd Observation on NPF variable is 2001 in June with a zscore value of 3.18554. (Attachment 3) (3) The third observation on the NPF variable is 2001 in September with a zscore value of 2.74788. (Attachment 3) (4) 26th Observation on the NIM variable, namely 2007 in June with a zscore value of 4.40208.

Based on this explanation, it is shown that the number of outlier data is 4 (four) data or observations, the number of observations or data used for the next test is as much as 40-4 = 36 data or observations. Based on the analysis results, the variables CAR, NPF, FDR, BOPO, NIM, and ROA are normally distributed because the significant level generated is greater than 5% (sig> 0.05).

Classic assumption test

To support the regression model results' accuracy, it is important to look for classical assumptions like multicollinearity assumptions, heteroscedasticity, and

autocorrelation. The results of multicollinearity, heteroscedasticity, and autocorrelation are as follows:

Multicollinearity Test

According to Ghozali (2005: 63), Multicollinearity and its opposite inflation factor could be seen from VIF (the value of tolerance). In the simple sense that every independent variable becomes dependent and returns to other independent variables, these two measurements show that other dependent variables explain independent variables. Tolerance evaluation the variability of the selected separate variables that other independent variables cannot explain; a low tolerance value is therefore equivalent to a high VIF (because VIF = 1/tolerance) and indicates a high degree of collinearity. The value of tolerance above 0.10 or below 10 is the widely used cut-off value. The level of tolerable collinearity must be determined by each analysis. The VIF number is less than 10 based on the study results for the five independent variables, with tolerance above 0.10. It can be inferred that there are no multicollinearity problems in the multiple regression model, so that the multiple regression model can be used.

Heterokedasticity Test

The Glejser test was used to detect the heteroscedasticity's presence or absence (Ghozali, 2005: 72). Based on the Glejser test results show Based on the Glejser test results, the significant CAR, NPF, FDR, BOPO, and NIM variables exceed 5 percent, Multi-linear regression equation can be assumed to have no heteroscedasticity problems; then multiple regression model can be used.

Autocorrelation Test

Autocorrelation in the linear regression means there is a correlation between time-related sample participants to assess the presence of autocorrelation in a regression model performed by Box-Pierce and Ljung Box tests (Ghozali, 2005: 67). The results of the autocorrelation test show that sixteen lags (16) are insignificant, so that it can be said that there is no autocorrelation between residuals. Criteria for the presence or absence of autocorrelation are if there is a significant number of lags of more than two, then autocorrelation is said to occur. If there is a significant lag of two or less than two, then there is no autocorrelation (Ghozali, 2005: 68)

Multiple Linear Regression Test

Multiple linear regression is the statistical analysis of this research, used to determine the effect on the dependent variable, ROA, of independent variables, namely CAR, NPF, FDR, BOPO and NIM. Amount of independent variable influences (CAR, NPF, FDR, BOPO and NIM).

Independent Variable	Regression coefficient
Constanta	14,718
CAR (X_1)	-0,021
NPF (X_2)	0,069
FDR (X_3)	-0,011
OER (X_4)	-0,141

Independent Variable	Regression coefficient
NIM (X_5)	0,043

$Y=14,718-0,021\ X_1+0,069\ X_2-0,011\ X_3-0,141\ X_4+0,043\ X_5$

From the regression equation above, an explanation can be obtained as follows: (1) Constant (a) is 14,718. If the CAR, NPF, FDR, BOPO and NIM are constant, then the ROA is 14.718%. (2) CAR variable regression coefficient of -0.021, this means that if the CAR rises by 1%, the ROA decreases by 0.021%, assuming the variables are NPF, FDR, BOPO and NIM constants. (3) The NPF variable regression coefficient is 0.069, which means that if the NPF rises by 1%, the ROA rises by 0.069%, assuming the variables are CAR, FDR, BOPO and NIM constants. (4) FDR variable regression coefficient of -0.011, meaning that if FDR rises by 1%, ROA decreases by 0.011% with the assumption of CAR, NPF, BOPO and constant NIM. (5) BOPO variable regression coefficient is -0.141, which means that if BOPO rises by 1%, ROA decreases by 0.141% with the assumption of CAR, NPF, FDR and constant NIM. (6) The NIM variable regression coefficient is 0.043, meaning that if the NIM rises by 1%, the ROA rises by 0.043% with the assumption of the CAR, NPF, FDR and BOPO constants.

F Test

Model		Sum of Squares	df	Mean square	F	Sig
1	Regression	17.538	5	3.508	16.311	000[a]
	Residual	6.452	30	.215		
	Total	23.990	35			

The results of F tests can be used to determine the suitability of the generated multiple linear regression model, if the significant level produced is less than 5 percent, the resulting multiple linear regression model can be used to determine the suitability of the produced multiple linear regression model if the significant level produced is less than 5 percent, to determine the effect of CAR, NPF, FDR, BOPO and NIM on ROA. Based on the results of the analysis, the Fcount value is 16,311 with a significant level equivalent to 0,000 of less than 5 percent which means that the regression model developed is appropriate or sufficient to evaluate the effect on ROA of CAR, NPF, FDR, BOPO, and NIM.

Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of The Estimate
1	.855[a]	.731	.686	.46374

The magnitude of CAR, NPF, FDR, BOPO, and NIM effect on ROA can be seen from the determination coefficient. Based on the results of the Determination Coefficient analysis is 0.731, which means that the influence of CAR, NPF, FDR, BOPO and NIM on ROA is 73.1% while the remaining 26.9% is influenced by other variables not discussed in this study.

T Test

Independent Variable	t_{hitung}	Sig
CAR (X_1)	-0,640	0,527

Independent Variable	t_{hitung}	Sig
NPF (X_2)	1,018	0,317
FDR (X_3)	-1,158	0,256
OER (X_4)	-7,370	0,000
NIM (X_5)	0,430	0.671

To examine the effect partially CAR, NPF, FDR, BOPO and NIM on ROA, the t test is conducted, based on the analysis results can be explained: (1) The significance level of CAR is more than 5% that is equal to 0.527, with a regression coefficient of -0.021. This means that CAR partially negatively affects ROA. So that the first hypothesis "CAR has a positive impact on ROA" truth is not tested. (2) The significance level of NPF is more than 5%, which is 0.317, with a regression coefficient of 0.069. This means that NPF partially has a positive effect on ROA. So that the second hypothesis "NPF has a negative impact on ROA" truth is not tested. (3) FDR significance level is more than 5% that is equal to 0.256, with a regression coefficient of -0.011. This means that FDR partially negatively affects ROA. So that the third hypothesis "Financing To Deposit Ratio has positive impact on Return on Asset" truth is not tested. (4) BOPO significance level is less than 5% that is equal to 0,000, with a regression coefficient of -0.141. This means that BOPO partially negatively affects ROA. So the fourth hypothesis "Operational Efficiency Ratio negatively affect Return on Asset" truth is tested. (5) The level of significance of NIM is more than 5% that is equal to 0.671, with a regression coefficient of 0.043. This means NIM partly has a positive effect on ROA. So the fifth hypothesis "Net Interest Margin has a positive effect on Return on Asset" truth is tested.

DISCUSSION

Data analyzes show the CAR, NPF, FDR, BOPO and NIM simultaneously contribute to ROA at Bank Muamalat Indonesia for the period 2009 to 2018. Partially BOPO contributes to ROA, while CAR, NPF, FDR and NIM are partially lacking contribute to ROA. The discussion of each variable CAR, NPF, FDR, BOPO and NIM are as follows:

Relationship on CAR towards ROA

The equation of regression shows that the coefficient for CAR is negative, which means that the higher the CAR value of Bank Mualamat Indonesia, the lower ROA of Bank Muamalat Indonesia, so that the 1st hypothesis "Adequacy Ratio Capital has a positive impact on ROA (Return on Assets)" truth not tested. If viewed from the resulting regression coefficient of -0.021 with a significance level of 0.527 (sig> 5%), meaning that the CAR is partially less contributing to the decrease in ROA. The lack of CAR's contribution to ROA is because Bank Muamalat Indonesia is not optimizing the available capital, as shown by the average CAR value of 12,5325 in 2001 to 2010

Relationship on NPF towards ROA

The equation of regression shows that NPF coefficient is positive, which means the higher the NPF value of The Bank Mualamat Indonesia, the higher ROA of Bank Muamalat Indonesia, so that the second hypothesis " Non-performing financing impacts Return on Assets " truth untested. When viewed from the regression coefficient generated at 0.069 with a meaning level of 0.317 (sig> 5%), meaning that the NPF is partially less contributing to the increase in ROA.

The lack of NPF contribution to ROA due to the increase in NPF doesn't the resulting decrease in ROA because the value of Allowance for Earning Assets Losses (PPAP) can still cover non-performing financing. The profit of Bank Muamalat Indonesia can still increase with a high NPF because profit sources other than income such as fee-based income are relatively high. Besides that, NPF may occur not because the debtor is unable to pay, but the strictness of the Bank Indonesia Regulation in the case of financing classification which causes debtors who were in the current category to go down to substandard. According to Bank Indonesia's records, non-performing financing was caused by, among other things, a decrease in quality of financing caused by a decrease in debtors' financial conditions, late payments, other payment problems, poor prospects debtor's business and the impact of applying Regulation Number 7/2 / PBI / 2005 concerning Bank Quality Assessment General. An increase in NPF requires a larger reserve, thereby reducing operating profit.

Relationship on FDR towards ROA

The equation of regression shows that FDR coefficient is negative, this means the higher the Bank Mualamat Indonesia FDR value, Bank Muamalat Indonesia's Lower ROA, so that the third hypothesis " Financing to deposit does have a positive impact on Return on Assets" truth is not tested. When viewed from the resulting -0,158 regression coefficient with a meaning level of 0,256 (sig>5 percent), meaning that FDR is partially less contributing to the decrease in ROA. Lack of FDR contribution to ROA because the financing channeled by Bank Muamalat Indonesia is less than optimal in making profit contributions to Bank Muamalat Indonesia in utilizing third party funds.

Relationship on BOPO towards ROA

The regression equation indicates that the BOPO coefficient is negative, which means that the higher the BOPO value of Bank Mualamat Indonesia will result in the lower ROA of Bank Muamalat Indonesia, so that the 4th hypothesis "Operational Efficiency Ratio negatively affect Return On Asset "truth is tested. When viewed from -7,370 regression coefficient with a meaning level of 0.000 (sig <5 percent), it means that BOPO partially contributes to the decrease in ROA. BOPO contribution to the decrease in ROA of the Bank Muamalat Indonesia because company is less efficient in issuing operational costs in generating profits. Efficient management of operational activities of the

Company by minimizing BOPO, the level of profit reflected in ROA as a measure of the profit-generating efficiency of Bank Muamalat Indonesia by using all assets owned.

Relationship on NIM towards ROA

The regression equation indicates a positive NIM coefficient, which means that the higher the NIM value of Bank Mualamat Indonesia will lead to the higher ROA of the Bank Muamalat Indonesia, so the 5th hypothesis " Net interest margin positively impact Return on Assets " truth is tested. When viewed from the regression coefficient value generated of 0.430 with a level of significance 0.671 (sig> 5%), it means that the NIM is partially less contributing to the increase in ROA. The lack of NIM's contribution to ROA due to interest rate changes and the efficiency of earned assets at Bank Muamalat Indonesia did not optimally increase income for company. Bank Muamalat Indonesia takes prudent actions in channeling financing so that the quality of its productive assets is maintained.

CONCLUSION

Based on results from processing can be concluded: (1) The increase in CAR does not contribute to the decrease in ROA of Bank Muamalat Indonesia (Companies), this occurs because Bank Indonesia, requires a minimum 8% CAR, always tried to keep CAR with Bank Muamalat Indonesia requirements, But Bank Mualamat Indonesia prefers not to keep its CAR at 8 percent because it means waste, because Bank Muamalat Indonesia is not optimal in channel funding as anticipated. (2) The increase in NPF does not expand the ROA of The Bank Muamalat Indonesia, as the Company has created an Allowance for Earning Assets Losses (PPAP) to cover unperformed financing. (3) The increase in FDR does not contribute to the decrease in ROA of Bank Muamalat Indonesia because the Company does not optimize the distribution of financing for funds collected from third parties. (4) The increase in BOPO contributed to the decrease in ROA of Bank Muamalat Indonesia as the company issued less efficient operating costs in generating profit. (5) The increase in NIM does not contribute to the increase in ROA of Bank Muamalat Indonesia, because the Company conducts prudent actions in disbursing financing so that the quality of its productive assets is maintained.

Policy-making to improve Bank Muamalat Indonesia (Companies), performance to reduce BOPO to increase ROA, this is because company issues operational costs that are less efficient in generating profits. The efficient management of operational activities of company minimizing BOPO company Indonesia will greatly affect the level of profitability of company is ROA reflected as an indication of company effectiveness in generating income through the use of total assets owned. (2) Suggestions for further research should add independent variables such as violations of the Maximum Lending Limit (LLL), inflation rate and the influence of exchange rate volatility. The limitations of this research are only using secondary data, namely the publication of company reports for 2009 to

2018, it is expected that future research can reach the management aspects of company, as done by Bank Indonesia in conducting a bank health assessment by CAMELS Rating System, or even using Good Corporate Governance, the Risk Profile method, Earning, and Capital (RGEC) which is a measurement of banking performance with the concept of Risk Based Bank Rating (RBBR).

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