The Prediction of Third Party Funds, Interest Rates, and Non-Performing Loans toward Loan To Deposit Ratios and Its Impact on Return on Assets on Commercial Banks in Indonesia

by Ni Nyoman Sawitri

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Abstract: This research aims to analyze the influence of third party funds, Bank Indonesia Certificates, and non-performing loans on return on assets and loan deposit ratio and the effect of loan deposit ratio on return on assets of commercial banks in Indonesia. The sample of this research is commercial bank listed Bursa Efek Indonesia period 2011 - 2015. There are 15 banks that meet the criteria as research samples with assets above IDR 50 Trillion. Hypothesis testing uses path analysis techniques. The results of this research indicate that TPF, BIC and NPL are partially and simultaneously influential and significant to the LDR, while TPF, BIC, NPL simultaneously also have an effect and significant effect on ROA, and LDR affects ROA but is not significant.

Keywords: third party funds, bank Indonesia certificates, non-performing loans, loan to deposit ratio, return on assets

INTRODUCTION

Banks as a subsystem in the economy of a country have an important role, the lives of modern people continue to involve everyday services from the banking sector. The bank receives deposits from the public and then redistributes them in the form of credit. The development of increasingly modern people's lives and increasingly complex economic transactions of a country, it also requires an increase in the role of the banking sector through the development of its service products.

Interbank competition in collecting funds from the public and redistributing it in the form of credit. In practice, there are many deviations from the rules that apply in the world of the banking business. Examples of forms of irregularities such as not paying attention to the principle of prudence by banks by giving unlimited credit to customers of one group, consequently detrimental to depositors and investors. Macro this has an impact on the country's economy due to the tendency of increasing non-performing loans. This impact was felt in 1997, the banking industry experienced a downturn as the impact of the monetary crisis that hit Indonesia (Faisol, 2007). Many sectors are affected by this event, especially Small and Medium Enterprises (SMEs) in increasing the ease of working capital credit facilities through credit channeling institutions (Wajdi, Ummah, & Dayu, P.Q. (2015), 2017). Likewise, the slowdown in the Indonesian economy against the background of the 2008 - 2009 Global Financial Crisis has affected the decline in bank credit expansion. However, what happened for the period of 2011 to 2015 actually found anomalies where there was an increase in Loan Deposit Ratio (LDR, but Bank revenues decreased from 2012 to 2015).

Return On Assets (ROA) is used to measure the ability of bank management to obtain profits or profits as a whole. The greater the ROA of a bank, the greater the level of profit achieved by the bank and the better the bank's position in terms of asset use. The main source of Bank income is the difference in interest between funding sources from third-party funds (Savings, Deposits and Demand Deposits) with interest on loans. While the comparison between TPF and loans provided is known as the Loan Deposit Ratio (LDR). One indicator of the mediation function of a bank can be seen from the size of the LDR. The amount of Return On Assets (ROA) and LDR from 2011 to 2015 is presented in Table 1

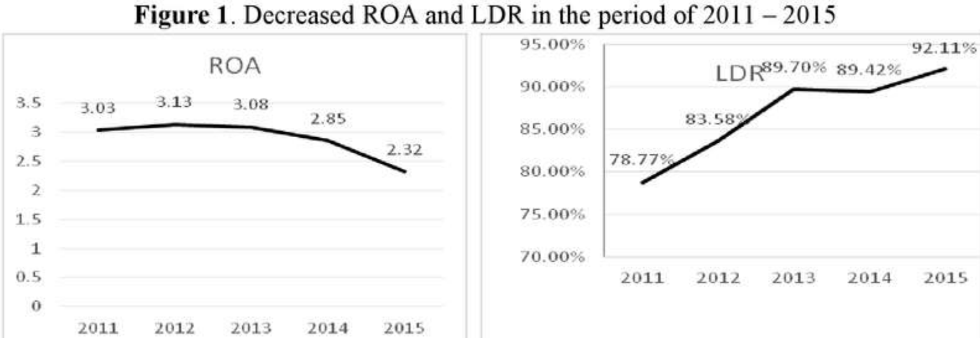
Table 1. Commercial Banks ROA, LDR, TPF, and SBI for the period of 2011 – 2015

	2011	2012	2013	2014	2015
ROA	3,03%	3,13%	3,08%	2,85%	2,32%
LDR	78,77%	83,58%	89,70%	89,42%	92,11%
TPF	3.093.848	3.542.518	4.070.018	4.594.876	4.961.746
SBI	6,00%	5,75%	7,50%	7,75%	7,50%
NPL	2,17%	1,87%	1,00%	2,70%	2,49%

Source: Bank of Indonesia and Indonesian Banking Statistics

Table 1 shows that Return On Assets (ROA) shows a declining trend from 2012 to 2015. In contrast, the LDR continues to increase from 2011 to 2015. This shows that the Bank's income decreases while LDR growth increases. Theoretically, should the LDR growth increase, then the Bank's income will also increase because the main source of the Bank's income is from the loan interest given to the debtor from third party deposit funds. Based on previous research, it is known that the higher the ROA, the healthier the bank is so that the concern of customers in saving their money is smaller, it can encourage an increase in the number of deposits leading to greater lending (Eng, TS (2013). commercial banks in Indonesia during the period 2011-2015. This can be seen in Table 1 and restated in Figure 1.

Figure 1. Decreased ROA and LDR in the period of 2011 – 2015



Source: Bank of Indonesia

According to Alamsyah et al (2005) in a country like Indonesia, the role of banks tends to be more important in development, because it is not only a source of financing but also able to influence the business cycle in the economy as a whole. This is because banks are superior to other financial institutions.

Commercial banks have a very important role in driving the wheels of the national economy because more than 95% of national banking deposits come from commercial banks. These deposits are then used to encourage economic growth through lending. The composition of national banking deposits in the period 2011 - 2015 (December position) is presented in Table 1.

In Table 1, it is known that commercial bank deposits increase every year. In 2012 it increased by 14.50% or Rp. 449 million from 2011, in 2013 it increased by 14.89% or Rp.528 million from 2012, in 2014 again increased by 12.90% from 2013 or increased by Rp 525 million, in 2015 it still increased by 7.98% from 2014 or Rp 367 million. This shows that deposits show an increasing trend, and illustrates the awareness of the public to use bank services as a means of saving funds or money.

Third Party Funds have a close relationship with the LDR. LDR is one indicator of the health level of the Bank, where the source of funds collected to channel Credit is Third Party Funds, which will affect the bank's income. In fact, in the period of 2011 to 2015, the development of deposits was directly proportional to credit growth but the performance of banks proxied with ROA showed a decline.

The results showed that the relationship between third-party funds and the LDR was positive, meaning that an increase in the volume of third-party funds would result in increased credit growth so that the LDR also increased. According to Nandadipa (2010), TPF has a positive but not significant effect on the LDR. Thus the growth of deposits is predicted to have a positive effect on the LDR.

Table 1 explains that SBI increases every year, is directly proportional to the LDR growth, for that there is an anomaly where the bank's interest rate in providing credit continues to increase, so credit growth should decline, because the SME sector will feel heavy in the loan interest given by the Bank, and indirectly will affect the Bank's profitability and/or bank performance which is proxied by ROA.

NPL shows the number of credit problems. According to BI Rules, due to the NPL, banks must provide a larger reserve fund, so that in the end the bank's capital is eroded. Even though the amount of capital greatly influences the amount of credit expansion. The amount of NPL is one of the causes of the difficulty of banks in lending. NPL Developments from 2011 to 2015 are illustrated in Table 1.

Table 1 presents the percentage of NPL developments from 2011 to 2015 relatively stable. This is not directly proportional to the relative decreasing ROA each year, based on the reference Journal, it is known that if so is the opposite if the NPL decreases automatically ROA will increase. On this matter, it is known that there are problems that are not fair, so the authors raise the issue as one of the background problems.

This explanation shows that there are problems with commercial banks in Indonesia that are related to probability (with an ROA proxy) and LDR. Based on the phenomenon in the research background and relevant research results, the purpose of this study is to see the effect of Third Party Funds (TPF), Bank Indonesia Certificates (SBI), and Non Performing Loans (NPL) on the Loan Deposit Ratio (LDR) and Return On Assets (ROA). Also the influence of LDR on ROA on Indonesian Commercial banks listed on the Indonesia Stock Exchange in 2011-2015.

Research on variables that affect LDR and ROA has been carried out using variable TPF, SBI, LDR, NPL, including Sudiyatno & Suroso (2010), Onny Setyawan (2017) and

Raharjo, Setiaji, & Syamsudin (2014).

The objectives to be achieved in this study are (1) Analyzing the effect of Third Party Funds (TPF), Bank Indonesia Certificate (SBI) Interest Rate, Non Performing Loans (NPL) on the growth of commercial bank Loan Deposit Ratio (LDR). (2) Analyzing the effect of Third Party Funds (TPF), Bank Indonesia Certificate (SBI) Interest Rate, Non-Performing Loans (NPL) and Loan Deposit Ratio (LDR) on the performance of commercial banks (ROA).

LITERATURE REVIEW

Based on available data, it is known that the loans channeled by banks continue to increase. This can be seen from the LDR of Commercial Banks in the period of 2011 - 2015 which continued to increase at a rate of 78% - 90% (Table 1). Therefore, this condition has the potential to cause bank liquidity risk to increase, where funds are channeled above the funds deposited in the bank.

The LDR itself is an indicator in measuring the intermediary function of banks in Indonesia. In accordance with Bank Indonesia Circular Letter (SE-BI) No. 30/23 / UPPB dated March 19, 1998, the LDR ratio was calculated from the distribution of loans with funds received which included demand deposits, deposits, and community savings. The loan does not include loans from banks with maturities of more than 3 months, excluding subordinated loans, deposits and loans from other banks with maturities of more than 3 months, securities issued by banks with maturities of more than 3 months, core capital, and loan capital. This SE-BI is then adjusted to Bank Indonesia Circular No. 6/23 / DPNP dated May 31, 2004 which was subsequently renewed through Bank Indonesia Regulation (PBI) No.13 / 1 / PBI / 2011 concerning Commercial Bank Soundness Rating, which requires Commercial Banks. The latest procedure is called the RGEC Method (Risk Profile, Good Corporate Governance, Earning, and Capital).

The LDR ratio is calculated from the distribution of loans given to third parties (excluding interbank loans) with deposits including deposits, savings, and time deposits (not including interbank). The higher the LDR, the greater the third party funds used for lending, which means that the bank has been able to carry out its intermediation function properly. On the other hand the LDR that is too high can cause liquidity risk for banks (Rahmadhani & Mawardi, 2011). The results showed that the relationship between third party funds and the LDR was positive, meaning that the increase in the volume of third party funds would lead to increased credit growth, so that the LDR also increased [Nandadipa (2010), Putri et al (2012), Sudiyatno and Suroso (2010)]

Hypothesis 1: Third Party Funds (TPF) have a positive effect on the amount of loans disbursed (LDR)

The Bank Indonesia Certificate (SBI) Interest Rate Policy is a monetary policy decided by the government to encourage the growth of the banking economy. In Indonesia, information about monetary policy can be monitored through SBI. In Indonesia, the interest rate of the central bank is proxied with the SBI interest rate. SBI Interest Rate is the annual interest rate issued every month by the government through Bank Indonesia. This interest rate is expected to represent the interest rate in general due to the prevailing interest rate in the market, the fluctuation follows SBI. The development of SBIs from 2011 to 2015 is presented in Table 4.

SBI interest rates that are too high make banks prefer to place their funds in SBI rather than lending (Sugema, 2010). The increase in the benchmark interest rate set by Bank Indonesia prompted an increase in credit interest rates. The interest rate on loans causes the interest expense of loans to increase too so that the bank's interest income received from the loan will increase and increase. Bank interest income increases, it will increase the profit/profit of the bank concerned. thus SBI has a negative effect on LDR [(Putri et al., 2012; Putri et al. (2012), and Rahmadhani and Mawardi (2011)].

Hypothesis 2: The influential SBI interest rate has a negative effect on the amount of loans disbursed (LDR)

Non-performing loans require banks to make a reserve fund, these funds may not be channeled as loans to creditors. As a result of the high NPL, the LDR is reduced. Nandadipa and Prasetiono (2010) and Eng, T. S. (2013) found evidence that the higher the NPL, the more funds channeled as loans became smaller.

Hypothesis 3: The number of non-performing loans (NPLs) has a negative effect on the amount of loans disbursed (LDR)

TPF - ROA. Increasing third party funds will provide the opportunity for banks to increase credit. The bank's main income is obtained from the loans disbursed. Thus the greater the TPF, the more credit distributed will increase, the bank's profitability will increase. Eng, T. S. (2013) and Faisol, A. (2007) found evidence that third-party funds had a positive effect on bank profitability

Hypothesis 4: Third Party Funds (TPF) have a positive influence on bank profitability (ROA)

SBI is a reference interest for banks in Indonesia. SBI has an impact on deposit and credit rates. An increase in SBIs for increasing deposit and loan interest rates. The interest rate for the deposits will increase the acquisition of third-party funds (TPF) because the level of results obtained by depositors will increase. An increase in SBI will also encourage an increase in credit interest. This causes the price of the loan to be more expensive so that the people who apply for credit will decrease. As a result, the amount of credit that can be channeled will decrease. Dayu, P. Q. (2015) found evidence that SBI had a negative effect on bank profitability.

Hypothesis 5: The SBI benchmark interest rate has a negative effect on bank profitability (ROA)

The third party fund (TPF) is the main source of funds that will be channeled as a credit after deducting the statutory reserve requirement (GWM). This credit will be the main income for the bank. Non-Performing Loans (NPL) is a ratio used to measure a bank's ability to cover the risk of failure of credit repayments by debtors (Darmawan, 2004). NPL reflects credit risk, the higher the level of NPL, the greater the credit risk borne by the bank (Ali & Supriyanto, 2004).

NPL has a negative impact on ROA. This is because the bank's interest income will decrease due to many bad loans. Raharjo et al (2014) and Eng, T. S. (2013) explained that with the increase in non-performing loans, the bank's profit rate would be reduced to a lower level. Nandadipa and Prasetiono (2010) examined the effect of NPL on LDR. The result states that the NPL variable has a negative effect on the LDR. This means that the greater the NPL in a bank, the lower the bank's ability to channel credit (LDR). The amount of NPL is due to the delay in the credit repayment schedule by customers which results in problem loans so that ultimately it affects the level of bank receipts to the funds channeled; this has a direct effect on liquidity. So the lower the NPL, the better the LDR in this case.

Hypothesis 6: Increase in the number of non-performing loans (NPLs) that are affected by negative bank profitability (ROA)

Loan Deposit Ratio (LD) is the ratio between the number of funds channeled as a loan and third-party funds managed by the bank. SDThe greater the ratio, the greater the effectiveness of the amount of credit channeled, consequently the bank's profitability will increase. Eng, T. S. (2013) and Sudiyatno, B., & Suroso, J. (2010) found evidence that LDR had a positive effect on bank profitability.

Hypothesis 7. Loan Deposit Ratio (LDR) has a positive effect on bank profitability (ROA)

Research on variables that affect LDR and ROA has been carried out by using the variables TPF, SBI, LDR, NPL, including Research Sudiyatno & Suroso (2010), Nandadipa and Prasetiono (2010), and Raharjo, Setiaji, & Syamsudin (2014).

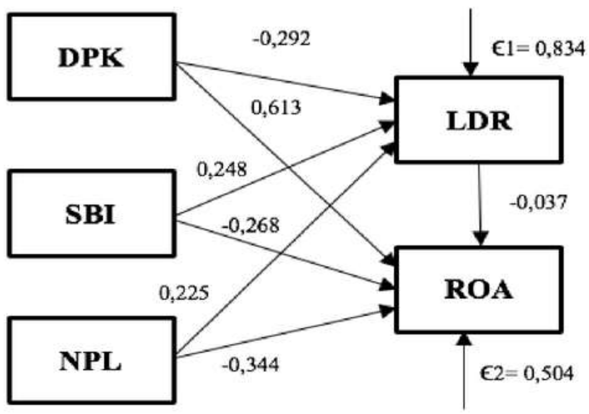


Figure 2. Conceptual Framework

Based on the formulation of the problems and hypotheses that are known to be constructed, then the framework is made in Figure 2. The mindset in Figure 2 briefly describes the flow of thought related to research. In the framework of the explanation that relates to the research variable, namely the SBI TPF, the NPL has an effect on the bank's performance which is described through ROA and LDR and the effect of LDR on ROA.

RESEARCH METHODOLOGY

The type of data used in the research is verification using secondary data, namely bank balance sheet data according to the researchers' criteria and statistical data of Bank Indonesia publications. Data collection is based on banking data that meet the research criteria for the period 2011 to 2015. The data obtained in the study comes from data on Indonesian banking (BI) and Bank Statistics in Indonesia published by Bank Indonesia (BI) and the Service Authority Finance (OJK).

The population used in the study is a commercial bank with total assets above Rp. 50 Trillion in Indonesia in the period of the 2011-2015 period. The number of

Commercial Banks registered at the Indonesia Stock Exchange up to the year of research with total assets above Rp 50 Trillion as many as 20 (twenty) Banks.

The sampling method uses the Purposive Sampling method with the following criteria. (1) Commercial Banks in Indonesia in the period 2011 to 2015. (2) Available financial statements and published consistently in the period 2011 to 2015 and submitted through Bank Indonesia (BI) and the Financial Services Authority (OJK). (3) Commercial Banks with total assets> IDR 50 Trillion during the period 2011-2015. Based on sample criteria, 15 Bank samples were obtained. The other five banks did not provide complete data (Table 2).

Table 2. List of Banks with Total Assets above Rp. 50 Trillion

No.	Bank Name	Total Assets
1	Bank BRI	964 Trillion
2	Bank Mandiri	918 Trillion
3	Bank BCA	662 Trillion
4	Bank BNI	661 Trillion
5	Bank CIMB Niaga	236 Trillion
6	Bank BTN	214 Trillion
7	Bank Panin	183 Trillion
8	Bank Permata	165 Trillion
9	Bank Danamon	149 Trillion
10	Maybank	158 Trillion
11	Bank NISP	120 Trillion
12	Bank Bukopin	115 Trillion
13	Bank BTPN	81 Trillion
14	Bank Mega	68 Trillion
15	Bank DBS	62 Trillion

Source: Bank Info

FINDINGS AND RESULTS

The research sample was 75 data taken from 15 banks with a span of 5 years. The output of the statistical description from the TPF shows that it has the lowest value of Rp. 2,182,700,000 this happened to DBS Bank. in 2011. It was known that DBS Bank was known as a bank with a BOOK 3 rating, with a Funding position below the industry average. The highest value of Rp 6,689,950,000 occurred at Bank BRI in 2015, because in that year BRI was the largest profit bank and was investing in infrastructure, especially in the field of technology based on e-banking.

The output of the statistical description of SBI shows that the lowest value of 5.75 occurred in 2012 due to Monetary policy from Bank Indonesia. The highest value of 7.75 occurred in 2014, because in that year there was a surge in inflation which had quite an impact on the national economy, where there was quite a lot of money circulating in the community, so that Bank Indonesia stepped up SBI interest rates so that people saved their money at the Bank. And the average value is 6.9000 with a standard deviation of 0.85127.

The output of the statistical description of the NPL shows that the lowest value of 0.35 occurred at DBS Bank in 2012, DBS Bank is quite conservative in providing credit.

The highest value of 4.09 occurred at BTN Bank in 2012, because in that year Bank BTN was very expansive in providing loans, especially Consumptive loans in the form of Mortgages (Housing Loans) and KPA (Apartment Ownership Loans), but not done carefully so that many generate bad credit quality. And the average value is 1.8584 with a standard deviation of 0.98342.

The output of the statistical description of ROA shows that it has the lowest value of 0.15 experienced by DBS Bank in 2015, this occurs because the decrease in credit given is followed by declining sources of funds or TPF or in other words, interest income which is the source of core income decreases from previous years. The highest value of 5.15 was experienced by Bank BRI in 2012, this was because the BRI Bank received a substantial source of funds due to the public sentiment that was very enthusiastic about the plan of Bank BRI to improve services to the public, especially in terms of technology in the form of E-Banking. And the average value is 2.4047 with a standard deviation of 1.21400.

The output of the statistical description of the LDR shows that the lowest value of 52.39 was experienced by Bank Mega in 2012, this was due to a decrease in credit given, at which time Bank Mega was conducting selective landing. The highest value of 108.86 was experienced by BTN Bank in 2014, this was because Bank BTN received a substantial source of funds because Bank BTN's loan distribution was quite high in the consumer loan segment with KPR, which required its debtors to make Bank BTN accounts. And the average value is 87,1707 with a standard deviation of 11,56210.

The significance value of the variable TPF, SBI, NPL, and LDR is above 0.05, only the SBI variable has a value of 0,000 so the data is normally distributed. R Square is the coefficient of determination. The amount of R2 is 0.166 = 16.6%, meaning the magnitude of the effect is 16.6%, while the remaining 83.4% is influenced by other variables.

Based on the frame of mind and the results of statistical tests, two structural equations are obtained, namely equations (1) and (2). The regression test results, the value of the t-test, and the coefficient of determination (R2) are presented below the test results of equations (1) and (2).

Structural Equation Test (1). Statistical test results Sub-structural equation (1) is a regression equation to analyze the influence of TPF, SBI, and NPL on the LDR. The results are presented as follows:

$$LDR = -0{,}292TPF + 0{,}248SBI + 0{,}225NPL + 0{,}834 \quad \ldots\ldots\ldots\ldots\ldots (1)$$

t test 2,25 2,25 2,051

$R^2 = 0{,}496$

Path coefficient value -0.292 with value of t count 2.25 (> 1.96). This value proves that there is a negative and significant effect of the TPF variable on the LDR. Value t = count SBI = 2.25 (> 1.96) with a positive coefficient. This shows that there is a positive and significant effect of the SBI variable on the LDR. The value of t is calculated for NPL = 2.051 (> 1.96) with a positive sign. This evidence shows that there is a positive and significant effect of the NPL variable on the LDR. R Square is the coefficient of determination. The amount of R2 is 0.496 = 49.6%, meaning the magnitude of the effect is 49.6%, while the remaining 50.4% is influenced by other variables. The magnitude of the path coefficient is 0.504.

Structural Equation Test (1). Statistical test results Sub-structural equation (2) is a regression equation to analyze the effect of TPF, SBI, NPL and LDR on ROA. The results are presented as follows:

$$ROA = 0{,}613TPF - 0{,}268\ SBI - 0{,}344\ NPL - 0{,}037\ LDR \quad \ldots\ldots\ldots\ldots\ldots (2)$$

t test	6,75	3,001	3,904	0,395

$R^2 = 0{,}166$

The value of t calculated TPF relationship to ROA is 6.756 with a significant 0,000 at a significant level $\alpha = 0.05$, indicating that there is a positive and significant effect of the TPF variable on ROA. The value of t calculates the relationship between SBI and ROA of 3.001. This value indicates that there is a negative and significant effect of the SBI variable on ROA. The value of t counts the relationship between NPL and ROA of 3.904 with a significant 0,000 at a significant level $\alpha = 0.05$. This shows that there is a negative and significant influence between the NPL and ROA. The value of t calculates the relationship between LDR and ROA of 0.395. This shows that there is no significant effect of the LDR variable on ROA.

Third Party Funds (TPF) affect the Loan Deposit Ratio (LDR). The first hypothesis proposed in this study is that Third Party Funds (TPF) have a negative effect on the Loan Deposit Ratio (LDR). This evidence proves that, if Third Party Funds (TPF) increase, the Loan Deposit Ratio (LDR) will decrease. This finding answers the first hypothesis but in a different direction. The results of this study indicate that the growth of Third Party Funds (TPF) can reduce the proportion of funds channeled to credit to third-party funds obtained by the bank. This finding can be caused by an increase in banking liquidity. It can also be caused by an increase in SBI interest rates which tends to increase (Table 1) so that borrowing costs become more expensive. This has an impact on the number of credit penguins reduced. The results obtained are contrary to the hypothesis and the results of previous studies conducted by Anggraeni et al., (2012) and Nandadipa (2010).

Bank Indonesia Certificates (SBI) Influence Towards Loan Deposit Ratio (LDR). The findings of the relationship between SBI and LDR prove that SBI has a positive effect on the LDR. This result proves that, if the interest rate for Bank Indonesia Certificates (SBIs) increases, the Loan Deposit Ratio (LDR) will decrease. This finding is in accordance with the second hypothesis. This finding explains that SBI interest rates will cause deposit and loan interest rates to increase. Increasing deposit rates will encourage people to increase their savings. In keeping with its credit, an increase in credit interest rates causes borrowing costs to become more sustainable so that those who apply for credit will decrease. So the increased SBI benchmark rate has an impact on two sides, the saving fund side has increased, the credit side has declined so that the LDR will decline. This finding is supported by the results of previous studies by Anngraeni SP (2009).

Non Performing Loans (NPL) affect the Loan Deposit Ratio (LDR). The results of the study prove that NPL has a negative effect on LDR. This finding supports the third hypothesis. This finding explains that an increase in non-performing loans (NPLs) has caused banks to increase the reserve fund for non-performing loans. Because the reserve fund from problem loans increases, the amount of funds disbursed to credit is reduced. The results of this study are consistent with the hypothesis and research conducted by Anggraeni SP (2009), Nassiruddin (2005), and Nandadipa and Prasetiono (2010).

Third Party Funds (TPF) affect Return On Assets (ROA). The results of the study prove that third party funds (TPF) have a positive effect on the banking profession. This finding supports the fourth hypothesis. This finding explains that if third party funds increase, it will cause an increase in the profitability of the bank. This relationship can be explained, if third party funds increase, it means that funds that can be channeled to credit will also increase. Banking credit is the main source of bank income. Likewise, the placement of funds in Bank Indonesia or other banks will increase. As a result, income increases, profits also increase. The results of the study are appropriate and in line with the results of the research conducted by Sudiyatno & Suroso (2010).

Bank Indonesiaisa Certificate (SBI) affects Return on Assets (ROA). The results of this study prove that Bank Indonesiaisa Certificate (SBI) has a negative effect on bank profitability. This is in accordance with Hypothesis 5.

SBI is the benchmark interest rate for banks in Indonesia. SBI has an impact on interest on deposits and loans. The increase in SBI will increase the cost of savings and loans. In terms of quantity, the amount of public deposits will increase, so the interest costs that must be paid by banks also increase. In terms of credit, the number of loan applications will decrease so interest income will also decrease. Increasing interest costs from the side of deposits and reducing income from the credit side imposes a bank's income will decrease, so the bank's profitability also decreases. The results of this study are the same as the research conducted by Muhammad Gabrili Suryo, Sri Rahayu and Annisa Nurbaiti (2015) which states that Bank Indonesia Certificates (SBI) affect Return On Assets (ROA).

Non Performing Loans (NPL) have an effect on Return On Assets (ROA). The results of the study prove that non-performing loans (NPLs) have a negative effect on bank profitability. This is in accordance with hypothesis 6 which states that Non Performing Loans (NPL) have a negative effect on Return On Assets (ROA).

The results of this study prove that the increase in NPLs caused bank profitability to decline. NPL is the number of credit problems. In terms of income, non-performing loans will reduce income. In terms of BI rules, NPL must be supported by reserve funds in bank cash. This fund may not be lent. As a result, introduce NPL will increase spare funds, so that funds that can be channeled to credit will decrease. This will have an impact on reducing interest income by banks. As a result of decreasing interest income, the profitability decreases. The results of this study are consistent with the results of a study conducted by Eng (2013), Raharjo et al., (2014), but different from the research conducted by Dayu (2015) which states that Non Performing Loans (NPL) has no effect on Return On Assets (ROA).

Loan Deposit Ratio (LDR) does not affect Return On Assets (ROA). The results of the study of the relationship between Loan Deposit Ratio (LDR) and Return On Assets (ROA) indicate that the LDR has no effect on ROA. This point is not in accordance with hypothesis 7, which states that the LDR affects ROA.

LDR can be used as an indicator of bank operational efficiency. Higher LDR means that banks operate more efficiently. These findings illustrate that the performance of banks in Indonesia is generally inefficient, so they cannot maximize the value of income from funds lent to the public. This inefficiency can be caused by many loans failing, thus adding to the burden on the bank. Apart from that, it illustrates that the ability of banks to fulfill obligations on third-party funds is quite good but has not run optimally. The more optimal the level of liquidity of the bank, the greater third-party funds channeled in the form of credit. The intermediary function of the bank has not been maximally characterized by the lack of optimal lending. In addition, the utilization of funds for other operational activities is also not optimal. The low LDR and NPL ratio shows that the use of funds has not been maximized, lending is very careful, whereas income is obtained not solely from lending, so the LDR is not significant towards ROA. Banking in Indonesia can improve its performance by conducting operational activities through various innovative banking strategies to increase profits. This can be done, such as by controlling BOPO and the quality of earning assets (NPL) and optimizing the bank intermediation function (LDR).

CONCLUSION

Based on research problems, analyze results, and discussion, it can be concluded as follows: (1) Third party funds (TPF) have a positive effect on the Loan-Deposit Ratio (LDR) in Commercial Banks in Indonesia for the period 2011-2015; (2) SBI reference rates and non-performing loans have a negative effect on the Loan-Deposit Ratio (LDR) in Commercial Banks in Indonesia for the period 2011-2015; (3) Third party funds (TPF) have a positive effect on profitability on commercial banks in Indonesia for the period 2011-2015; (4) The SBI reference rate and non-performing loans have a negative effect on the Profitability of Commercial Banks in Indonesia for the period 2011-2015; (5) The Loan-Deposit Ratio (LDR) has no impact on Profitability in Commercial Banks in Indonesia for the period of 2011-2015.

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