

ANALYSIS OF THE EFFECT OF CAPITAL, CREDIT RISK AND PROFITABILITY TO IMPLEMENTATION BANKING INTERMEDIATION FUNCTION (Study On Regional Development Bank All Over Indonesia Year 2012)

Herry Achmad Buchory
EKUITAS Economics College, Bandung, Indonesia
Email: achmad_buchory@yahoo.com

ABSTRACT

Banking has a very important role in facilitating the growth of the economy of a country because it has a function as an intermediary institution. Regional Development Bank in Indonesia was established to accelerate the growth of the economy. But in reality the contribution of BPD to Gross Regional Domestic Product (GRDP) in 2012 was still relatively small, it is allegedly not optimal implementation intermediasi banking functions by BPD indicated by the Loan to Deposit Ratio (LDR) are still low. The aim of this study was to analyze the factors that affect the implementation of intermediation include Capital, Credit Risk and Profitability. The method used is descriptive and verification method, with secondary data from financial statements 26 all over Indonesian Regional Development Bank as a research object units. Data analysis technique is the multiple linear regression, hypothesis testing while using t - test to examine the effect of partial variables and test - F to examine the effect of variables simultaneously with a significance level of 5 %.

Based on the results it is concluded that partial CAR and ROA positive and significant effect on LDR. While the NPL has negative effect but no significant negative effect to LDR. Simultaneously CAR, NPL and ROA significantly influence the level of influence of LDR with 34.9% and the remain is influenced by other factors not examined.

Keywords: Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Non-Performing Loans (NPLs), Return on Assets (ROA) .

1. BACKGROUND

Bank as the depository financial institution holds a very important role in the economy of a country. Bank facilitates the interests of savers with borrowers through products and financial services it offers. Besides the activities of banks can also provide services that facilitate payments traffic. This can not be denied that the role of banks which can be used as a tool in setting monetary policy is also a major source of credit to finance the construction of which will ultimately affect the economic growth of a country (Koch, 2000; Buchory, 2006). The role that financial institutions have played in financial intermediation and growth, namely to mobilize savings and allocate them to the most productive and growth-promoting activities (Mahran,2012). Banking plays such a major role in channeling funds to borrowers with productive investment opportunities, this financial activity is important in ensuring that the financial system and the economy run smoothly and efficiently” (Mishkin & Eakins, 2006). The combined effects of financial intermediation, which are the externality and inter-sectoral factor productivity differential effects, on economic growth are significantly positive and do not appear to depend on the stage of economic development attained (M.O. Odedokun, 1998).

Intermediation function performed by banks through the purchase of surplus funds from economic units (business sector, government and individual / household) to be distributed to deficit economic units (Hempel, 1994). In other words, a financial intermediation is the diversion of funds activities from savers (ultimate lenders) to the borrower (the ultimate of borrowers). Implementation of financial intermediation in banking can be seen from the bank's ability to transform the savings are received primarily from household economic units into credit or loans for companies and other parties to make investments in buildings, equipment and other capital goods (Rose, 2002).

In the context of Indonesia's economy remains the dominant role of banks as compared to other financial institutions. It can be seen from the asset market indicators of financial industry until the month of June 2013. Banks still dominate the market share that is equal to 78.24 %, followed by 6.13% finance companies, insurance companies 6.15 % , 5.12 % social insurance companies, pension funds 2.70 % , 1.09 % corporate securities and mortgage of 0.57 % . (Infobank Research Bureau, 2013). Especially with regard to banking assets, total assets to the position on July 2013, which has reached Rp 4510.29 billion invested largely in the form of loans of Rp 3045.51 trillion or 67.52 % (Indonesian Banking Statistics , 2013) . Though the ratio of credit to Gross Domestic Product (GDP) of the Indonesian Banking in 2011 only amounted to 29.6 % is still relatively low compared to Singapore 128.6 % , 117.3 % Malaysia , Thailand and the Philippines 81.2 % 31.4% (Infobank Research Bureau , 2012) , but still, nevertheless that the contribution of banking through its business activities play an important role in facilitating the growth of the Indonesian economy

Regional Development Bank (BPD) in Indonesia was established with the intent to provide funding for the implementation of local development efforts in the framework of National Development (Law no. 13 1962). Later in the decree of Ministry of Internal Affairs No. 62 In 1999, affirmed that the principal task of developing the economy and the BPD is moving regional development, while the function is: (1) Promoting the creation of the level of economic growth and regional development in order to improve the standard of living of the people, (2) The holder or a regional treasury and financial management areas, and

(3) One source of revenue. However, up to this time in carrying out its duties and functions of the BPD still faces several problems, among others : Capital Limited ; Brand Awareness community to BPD is still very low ; Quality of service does not meet the expectations of society ; Quality and HR competencies have not been standardized ; Innovation and product development is still limited ; Networks office services is still limited ; Not optimal strategic partnership ; Structure of public funding is relatively low ; Composition of the productive loan portfolio is relatively low, and not consolidate information technology (Eko Budiwiyo, 2012) .

As one of the commercial banks BPD should play a very important role in the economy, especially the regional economy. The role is mainly seen how big BPD can carry out its intermediary function. Intermediation function performed by BPD through the process of purchasing the surplus funds from economic units (business sector, government and individual / household) to be distributed to deficit economic units. In other words, a financial intermediation is the diversion of funds activities from savers (ultimate lenders) to the borrower (the ultimate of borrowers). One commonly used indicator to measure the implementation of banking intermediation, is the ratio of loans to deposits or Loans to Deposits Ratio (LDR) (Haruna, 2011; Buchory, 2006; Aviliani and Purwanto, 2004; Sugiarto, 2003). The higher this ratio is, the better it means that the bank could carry out intermediation function optimally. LDR is achieved by the BPD to December 2012 is 78, 57% lower than the national banks (83.58%), and other groups such as State Banks (79.84%); Private National Banks (81.58%); Non-foreign Exchange Banks (82.73%); Joint Banks (115.63%) and Foreign Exchange Banks (111.21%) (Indonesian Banking Statistics, 2013). Achieved low LDR BPD indicated that the implementation of banking intermediation by BPD has not been optimal. Not optimal implementation of banking intermediation by BPD is thought to include the effect of the Capital Adequacy Ratio (CAR), Non Performing Loan (NPL), and Return on Assets (ROA). This study aimed to analyze the factors that affect the implementation of the intermediation function of banks that allegedly include the effect of the Capital Adequacy Ratio (CAR), Non Performing Loan (NPL), and Return on Assets (ROA).

2. LITERATURE REVIEW

2.1. Definition, Role, Function and Core Activity of Bank

Bank is a financial institution whose main activity is receiving public deposits then the funds will be disbursed in the form of loans to communities who need them. Besides taking deposits and giving loans, banks also provide other financial services.

Below are a few notions of banks as follows:

- "Banks are the institutions that have a banking license, accept deposits, make loans, accept and issue the checks" (Global Association of Risk for Professionals / GARP, 2005)
- "Bank is an organization that combines human effort and financial resources to carry out the functions of the bank in order to serve the needs of the community and to make a profit for the owners of the bank" (George Hempel, 1999).
- "Banks are business entities that raise funds from the public in the form of savings and channel them to the community in the form of credit or other forms in order to improve the living standard of the people" (Law No. 7 of 1992 and amended by Law No. 10 of 1998 about banking).

Based on the understanding that some of the above can be concluded that banks are business entities that raise funds in the form of savings and channeling credit back in shape and or other forms as well as providing financial services needed by the community in order to improve the living standard of the people and to make a profit for the owners of the bank.

The role of banks in the economy can be expressed ".....banking plays such a major role in channeling funds to borrowers with productive investment opportunities, this financial activity is important in ensuring that the financial system and the economy run smoothly and efficiently"(Mishkin & Eakins, 2006). The same is expressed as follows ".....commercial banks play an important role in facilitating economic growth. On a macroeconomic level, they represent the primary conduit of Federal Reserve monetary policy. Banks deposit represent the most liquid form of money, such that Federal Reserve efforts to control the nation's money supply and level of aggregate economic activity do so by changing the availability of credit at banks. On a microeconomic level, commercial bank represent the primary source of credit to most small business and many individuals" (Koch, 2000). While other opinions about the role of the bank is as follows "A bank can be defined in the term of : (1) The economics function is serves, (2) The services is offers its customer, or (3) The legal basis for its existence. Certainly bank can be identified by the functions they perform in the economy, they are involved in transferring funds from savers to borrowers (financial intermediation) and in paying for goods and services"(Rose & Hudgins, 2008)

The opinion of some, the role of banks in the economy of a country, among others, as :

- institutions that can raise public funds
- institutions that can create tools and efficient payment system
- institutions that can be used to support monetary policy
- the main source of credit that can be used to finance working capital, investment and consumption needs
- to control inflation together with the central bank.

In general, the function of banks is to collect and distribute public funds. For the Indonesian banking bank functions listed in the Law of the Republic of Indonesia Number 7 of 1992 and amended by Law No. 10 of 1998 on Banking, that banks are business entities that raise funds from the public in the form of savings and channel them to the public in the form of loans or other forms in order to improve the living standard of the people. In other parts of the Act, the bank also provides a variety of services and conveniences that in essence is to meet the needs of people of all financial transactions. With its principal functions the existence

of the bank as a collector of funds, channeling funds and financial service providers are expected to support the implementation of national development, especially in areas of the economy which in turn will improve the welfare of the people.

Various references explain in more detail about the functions that are owned by a bank, namely:

- a. The credit function
- b. The investment planning function
- c. The payment function
- d. The thrift or saving function
- e. The cash management function
- f. The investment banking or underwriting function
- g. The brokerage function
- h. The insurance function
- i. The trust function (Rose, 2000).

Thus, in summary functions of banks can be divided into:

1. Funds raising
2. Funds Distribution or credit giver.
3. Other Funds Distributors.
4. Bank Services that can expedite traffic flow payments.

While the core activity of a bank as a financial institution that is always associated with the transactions or financial activity that occurred in the community are:

1. Intermediation (taking deposits and lending money).
2. Disintermediation (relinquishing the intermediary debtor/creditor position, while retaining a 'broker' role).
3. Collection and payment system, money transmission.
4. Foreign exchange, foreign trade services.
5. Participation in the money and capital market (Cade, 1997)

2.2. Definition and Factors of Affecting Banking Intermediation

Bank is a depository financial institution that holds an important role in the economic development of a country. The role is primarily due to the function of which is owned by a financial institution as an institution that can facilitate interest between surplus units (Units Surplus Spending / SSUs) with deficit unit (Deficit Spending Units / DSUs) (Kidwell, 2000). In simple terms the role of banks in the economy is to fulfill the desire of ultimate borrowers (storage) and the ultimate lenders (borrowers). However, the role of banks actually quite complex because there are two interests besides other interests that must be met by a bank that the interest of the owners and government (regulator). Thus a bank must be able to balance the various interests of the (ultimate of borrowers, ultimate lenders, owners and regulators) are sometimes different (Hempel, 1994).

Given the banking sector is the liaison between the parties that the excess funds to those who need funds, the reallocation of public funds has important implications for the movement of the economy as a whole. Therefore, the role of banks in the economy especially from the extent to which the bank can carry out its intermediary functions. Financial intermediation (financial intermediary) is the process of buying funds from surplus economic units (business sectors, government and individual / household) to be distributed to deficit economic units (Hempel et al 1994). The same is stated by Kidwell (2000) which states that intermediation is the process of transformation or direct purchases a claim with a series of characteristics (maturity, denomination) of DSUs and turn it into a claim indirectly by a different set of characteristics to be sold to SSUs. Meanwhile, according to Gardner (2000), intermediation is a process of transformation from secondary securities into primary securities. Primary securities are the claim of individuals, government and non-financial companies. While the secondary securities are claims against financial institutions.

Financial intermediation in the banking or banking intermediation is the process of raising funds and channel them back in the form of loans used to finance productive activities that have contributed to economic growth. Thus, the implementation of financial intermediation in banking can be seen from the bank's ability to transform savings received primarily from household economic units into credit or loans for companies and others to invest in buildings, equipment and other capital goods (Rose, 2002).

According Sugiarto (2003), the indicators commonly used to measure the extent of intermediation by the banking system has been implemented, namely by looking at the ratio of loans to deposits known as Loans to Deposits Ratio (LDR). The same is stated by Aviliani and Purwanto (2004) that an indicator to measure the workings of the banking intermediation function is to look at the Loan to Deposit Ratio (LDR). Similarly, according Buchory (2006), LDR ratio reflects the ability of banks to extend credit and collect public funds. The higher this ratio is, the better it means that the bank could carry out intermediation function optimally. Vice versa, the lower this ratio means the bank in carrying out its intermediary function is not optimal. Some of the causes have not been optimal implementation of banking intermediation in the region, according to research by Bank Indonesia is caused by: the limited authority of the bank branches in deciding loans, the effect of the financial condition of the internal branch of the credit, the existence of alternative investment of funds, the business climate in the region, the precautionary principle (Abdullah and Suseno, 2003).

In this study, the authors suspect that is not the optimal implementation of the intermediary function (LDR) by BPD (Regional development bank) is caused by factors capital (CAR), credit risk (NPL) and profitability (ROA) .

2.2.1. Loan to Deposit Ratio (LDR)

As noted above that the LDR is an indicator in the measurement of banking intermediation. According to the research result Buchory (2006) implementation of financial intermediation function give effect to banking performance. This means that banks will have good financial performance if the bank could carry out its intermediary function optimally.

For banks in Indonesia, according to Bank Indonesia Circular Letter No. 13/24/DPNP dated October 25th, 2011 Subject : Valuation of Level Commercial Bank Soundness and the circular letter No. 15/41 / DKMP Jakarta, October 1st, 2013 Subject: Calculation of Minimum statutory Reserved Demand Deposit and Compulsory Demand deposit by Loan to Deposit Ratio in Rupiah. Loan to Deposit Ratio hereinafter referred to as the LDR is the ratio of loans to third parties in exchange Rupiah and foreign currency, excluding loans to other banks, the deposits which include demand deposits, savings and time deposits in Rupiah and foreign currencies, excluding interbank funds. Therefore, a bank's LDR is determined by the bank's ability to collect and distribute funds to third parties in the form of credit. LDR formula is:

$$LDR = \frac{\text{Total Loans}}{\text{Total Third-party Funds}} \times 100 \%$$

The higher the LDR showed greater use of bank deposits for lending, which means bank has been capable to run intermediary function properly. However, if the LDR is too high can also rise a liquidity risk for banks.

Parameters used in the calculation of the Rupiah GWMLDR set as follows:

1. The lower limit of the LDR target by 78% (seventy eight percent).
2. The upper limit of the LDR target:
 - a. of 100% (one hundred percent) until December 1st, 2013, and
 - b. by 92% (ninety-two percent) since December 2nd, 2013.

The implementation of financial intermediation gives effect to banking performance. This means that banks will have good financial performance if the bank could carry out its intermediary function optimally.

2.2.2. The Effect of Capital Adequacy Ratio (CAR) of the Loan to Deposit Ratio (LDR)

Intermediation function can be implemented optimally if supported by adequate capital (Buchory, 2006). Even though the funds collected by the third party is very large, but if not offset by additional capital the banks will be limited in extending credit. Bank capital is not only important as a source of funds to meet the needs of the bank, but the bank's capital will affect management decisions in the creation of the rate of profit on the one hand and the potential risks on the other. If the bank's strong capital the bank has a strong financial. Under these conditions, the role of capital for banks is very important both as a buffer to accommodate the increased unexpected losses derived from credit, interest rate, liquidity and operational risk as well in order to build public trust. Capital plays a very important role (Culp, 2001), namely as: (1) Buffer loss (capital loss as a buffer), and (2) Investment Mechanism (capital as an investment mechanism). The same opinion was expressed that the role of capital in the bank are: (1) As a tool for achieving the optimal capital structure (capital as a Means for Achieving the optimum capital structure), and (2) As security guards bank risk management in order to secure (capital a substitute risk management for banks to ensure safety) (Schroeck, 2002). Similarly, according to Rose (2002) that the bank capital plays a very important role in supporting the bank's operations and viability in the long term, these roles are:

- 1) Capital provides a cushion against the risk of failure by absorbing financial and operating losses until management can address the bank's problem and restore the intitution's profitability
- 2) Capital provides the funds needed to get the bank chartered, organized, and operating before deposits come flowing in
- 3) Capital promotes public confidence in a bank and reassures its creditors (including the depositor) of the bank's financial strenght
- 4) Capital provides funds for the organization's growth and development of new services, programs, and facilities
- 5) Capital serves as a regulator of bank growth

To determine the strength of a bank's capital can be measured by the minimum capital adequacy ratio or the Capital Adequacy Ratio (CAR). CAR is an indicator of the ability of banks to provide funds for expansion and accepting risk loss caused by the operations of the bank. CAR formula is:

$$CAR = \frac{\text{Capital}}{\text{Risk Weighted Assets}} \times 100 \%$$

For banks in Indonesia, according PBI. 14/18/PBI/2012 November 28th 2012 subject : Minimum Capital Adequacy shall be at the low as follows:

- a. 8% (eight percent) of the Risk Weighted Assets (RWA) for the Bank's risk profile rating of 1 (one);

- b. 9% (nine percent) to less than 10% (ten percent) of the RWA for the risk profile of the Bank with a rating of 2 (two);
- c. 10% (ten percent) to less than 11% (eleven percent) of RWA for the risk profile of the Bank with a rating of 3 (three);
- d. 11% (eleven percent) to 14% (fourteen percent) of RWA for the risk profile of the Bank with a rating of 4 (four) or a rating of 5 (five)

The higher the CAR, the greater the financial resources that are able to be used to support implementation of the particular credit intermediation function. According to Soedarto (2004) Capital Adequacy Ratio (CAR) has a positive and significant impact on bank credit, as well as research conducted by Budiawan (2008). And according to Buchory (2006) implementation of financial intermediation influence on the capital structure of the bank. This means that the bank in carrying out the functions of financial intermediation, especially in lending is needed in addition to the funds raised from the public also must be supported by adequate capital. Nasirudin (2005) research results showed that the level of capital adequacy significant effect on LDR in Central Java. Then, according Siringoringo (2012) capital structure simultaneously affect the intermediation function Bank. Furthermore, research results Tangko (2012) showed that the variables CAR significantly influence to LDR. Similarly, the result research of Sitorus (2013) entitled Analysis of Factors influence of Non - Performing Loans (NPLs) at Go Public Bank at Indonesia Stock Exchange period 2005-2011, the result of the research indicates that the Capital Adequacy Ratio (CAR), influence the Loan to Deposit Ratio (LDR) . While the study results Mbizi (2012), entitled An Analysis of the Impact of Minimum Capital Requirements on Commercial Bank Performance in Zimbabwe, findings revealed that there is a significant and positive relationship between commercial bank capitalization and its performance. Utari research results and Haryanto (2011) the results showed that CAR is not significant positive influence on the LDR with a significance level of $0.192 > 0.050$. And the results of Tamtomo research (2012) partially Capital Ratio Adequacy positive and significant effect on LDR .

2.2.5. The Effect of Non-Performing Loans (NPLs) of the Loan to Deposit Ratio (LDR)

Credit is the greatest asset investment banks. Similarly, loan interest income is the largest source of revenue for banks. If the credit returns fail then the ability of banks to provide new loans will be disrupted. In addition to the bank's revenue would also decrease in interest income due to non-receipt of credit. Besides, the bank also must establish reserves or provisions of problem loans that ultimately will reduce the bank's capital. Though, much capital is needed for credit expansion. The reduced of banks ability to provide credit to interfere with the implementation of the bank intermediation. Credit quality of a bank is indicated by the *Non-Performing Loan* (NPL). Thus NPL can be used to measure the ability of banks to cover the risk of default of loan repayment by the debtor.

NPL formula is:

$$\text{NPL} = \frac{\text{Non Performing Loans}}{\text{Total Loans}} \times 100\%$$

Based on Bank Indonesia Circular Letter No. 13/24/DPNP on October 25th, 2011 concerning the Commercial Banks, problem loans are loans to a third party bank not belonging substandard, doubtful and loss. The total loans is loans to non-bank third party.

The higher the level of NPLs, the greater the credit risk borne by the bank. NPL rate may affect the level of efficiency of banks. The research Karim, Chan and Hassan (2010) states in Malaysia and Singapore, clearly indicate that higher non-performing loan reduces cost efficiency. Therefore, banks should be able to press a low NPL ratio so that the potential benefits to be gained will be even greater, because banks will save the allowance for credit losses Allowance for troubled or Assets (PPAP). The low Allowance (PPAP) formed the greater profitability and ultimately improve the bank's capital. Based on the results of several studies cited Pratama (2010), according to Sentausa (2009) the amount of NPLs to be one of the causes of the difficulty banks in lending. Similarly, according to Harmanta and Ekananda (2005) NPL significantly and negatively related to bank credit. Meanwhile, according to Budiawan (2008) effect negatively and significant on bank credit. Meanwhile, according to Soedarto (2004) Non-performing loan (NPLs) effect positively and significant on bank credit. While the study results of Nasirudin (2005) showed that the variable non-performing loans have a significant effect on LDR. Utari and Haryanto (2011) research, the results showed that NPL has a significant negative influence on the LDR with a significance level of $0.000 < 0.050$. The same thing was stated Tamtomo (2012) that partialy, non-performing loan variable effect negatively and a significant on LDR. And Tangko (2012), research results on the state banks in Indonesia showed that the NPL variable has a significant negative effect on LDR. Meanwhile, according to Al-Abedallat and Al-Shubiri research (2013) has empirically examined the determinants of credit risk held by Jordanian banks over the 2006 to 2010 periods , This study takes its importance from the numerous structural changes in the Jordanian banking sector that have exposed them to a number of important risks and challenges for their stated stability . The credit risk is one of the main risks that seriously affect banks' stability. Meanwhile, according to Sitorus (2013) the result of the research indicates that the Capital Adequacy Ratio (CAR) , Return on Assets (ROA) , Net Interest Margin (NIM) and Operational Cost of Operational Income (BOPO) that totally influence the Non-Performing Loan (NPL).

2.2.5. The Effect of Return On Assets (ROA) of the Loan to Deposit Ratio (LDR)

Bank is an organization that combines human effort and financial resources to carry out the functions of the bank in order to serve the needs of the community and to make a profit for the owners of the bank (George Hempel, 1999). Banking profits obtained through bank intermediation process. Analysis of profitability needs to be done to measure the level of business efficiency and profit achieved by a bank. Ratio commonly used to measure and compare the performance of profitability is

Return on Assets (ROA). Return on Assets (ROA) is the major ratio used in analyzing bank profitability. ROA is used to assess the ability of bank management in managing all bank assets to create revenue in the form of profit is calculated by comparing net income to average total assets.

ROA formula is:

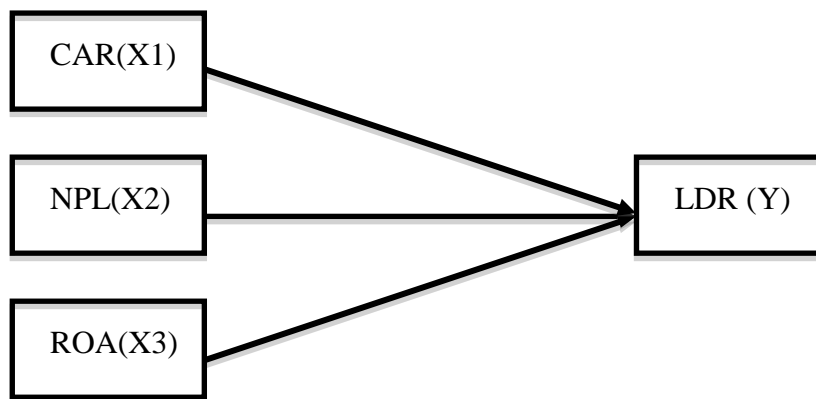
$$ROA = \frac{\text{Earning Before Interest and Taxes}}{\text{Total Assets}} \times 100\%$$

The higher the ratio profitability then better means the bank's management has been managing assets and use them efficiently to generate profits. The results study of Utari and Haryanto (2011) showed that ROA is not significant negative influence on the LDR with a significance level of $0.560 > 0.050$. While based on Tamtomo (2012) research result, found that the Return On Asset (ROA) positive and significant effect on LDR.

2.3. Theoretical Framework

Based on the literature review supported by the results of previous studies, the suspected variables CAR, NPL and ROA affect the implementation of banking intermediation function as measured by the Loan to Deposit Ratio (LDR). Thus the research framework can be described as follows:

Gambar 2.1 Theoretical Framework



Source : Nasirudin (2005), Buchory(2006), Pratama (2010), Karim, Chan and Hassan (2010), Granita (2011), Utari dan Haryanto (2011), Siringoringo (2012), Tangko (2012), Mbizi (2012), Astohar (2012), Tamtomo (2012), Amriani (2012), Octavianitari and Wiagustini (2012), Sitorus (2013), Al-Abedallat and Al-Shubiri (2013)

2.4. Hypothesis

Based on the relationship between research objectives and theoretical framework to the formulation of the research problem, the hypothesis is as follows:

- H1: CAR positively effect on LDR
- H2: NPL negatively effect on LDR
- H3: ROA positively effect on LDR
- H4: CAR, NPL, ROA effect on LDR

3. RESEARCH METHOD

Research Method

The methods used in this research are descriptive method and verification method. Descriptive method is a method used to analyze data in a way to describe or depict the data that has been collected as is without intending to apply general conclusions or generalizations while the verification method is a method of research that aims to determine the relationship between two or more variables. This verification method is used to test the truth of a hypothesis. Influence or shape the causal relationship between variables X and Y can be known from the research method of verification. (Sugiyono, 2009)

Type, Data Source, Population, Sample and Data Collection Methods.

Data used in this study is secondary data All Indonesian Regional Development Bank which include Capital Adequacy Ratio (CAR), Non-Performing Loans (NPLs), Return on Assets (ROA) and the Loan-to-Deposit Ratios (LDR) were obtained from the Indonesian Banking Statistics and Data Center Consultant EKOFIN Publications in 2012. (calculated quarterly).

The study population was all Bank Pembangunan Daerah in Indonesia totaling 26 BPD (Regional Development Bank) serve as the object of study. While the object is observed Financial Statements 26 Regional Development Banks All Indonesia per December 31st, 2012.

Data collection method used was to study the documentation. Study the documentation is done with the data collection and classification category of written materials related to the research problem.

Operational Variables

This study uses the independent variables, namely Capital AdequacyRatio (CAR), Non-Performing Loan (NPL), Return on Assets (ROA) and the dependent variable is the implementation of function banking intermediation as measured by the Loan to Deposit Ratio (LDR).

Analysis Techniques Data

The analysis technique used in this study is a multiple linear regression with first tested to determine whether the assumptions of classical linear regression model is used there is no problem of normality, multicollinearity, heterocedasticity, dan autocorrelation. If all of them were fulfilled means that the model has a decent analysis used (Gujarati, 2003).

To examine the hypothesis was used T-test to determine statistical significance of the effect of independent variables on the dependent variable and the partial, F-test to determine the statistical significance of the coefficient of multiple significance or F test to determine significance of the independent variables on the dependent variable simultaneously. Data processing is done by using the software Statistical Package for Social Science (SPSS) version 20.0 for Windows. The regression equation used is as follows:

$$Y = a + \beta X_1 + \beta X_2 + \beta X_3 + e$$

Dimana,

Y = Loan to Deposits Ratio (LDR)

a = Konstanta, yang merupakan nilai variabel Y pada saat nilai variabel X adalah 0 (n

β = Koefisien garis regresi

X_1 = Capital Adequacy Ratio (CAR)

X_2 = Non Performing Loans (NPL)

X_3 = Return On Assets (ROA)

e = Residual

4. RESULTS AND DISCUSSION

4.1. The Development LDR, CAR, NIM, BOPO, NPL and ROA Regional Development Bank in Indonesia

Based on data until December 2012, the development of LDR, CAR, NPL and ROA were achieved by 26 Regional Development Banks operating in Indonesia are as follows:

Tabel 4.1. THE DEVELOPMENT LDR, CAR, NIM, BOPO, NPL and ROA REGIONAL DEVELOPMENT BANKS IN INDONESIA DECEMBER 31st, 2012 (Percentage)

| No. | Nama Bank | LDR | CAR | NPL | ROA |
|-----|------------|--------|-------|------|------|
| 1. | DKI | 73.50 | 12.30 | 3.20 | 1.87 |
| 2. | JABAR | 74.09 | 18.11 | 2.07 | 2.46 |
| 3. | JATENG | 82.62 | 14.38 | 0.80 | 2.73 |
| 4. | DIY | 71.89 | 14.40 | 0.84 | 2.56 |
| 5. | JATIM | 83.55 | 26.56 | 2.95 | 3.34 |
| 6. | ACEH | 89.89 | 17.82 | 3.30 | 3.66 |
| 7. | SUMUT | 101.90 | 13.24 | 2.86 | 2.99 |
| 8. | SUMBAR | 100.35 | 15.12 | 2.69 | 2.65 |
| 9. | SUMSEL | 75.98 | 13.55 | 6.82 | 1.90 |
| 10. | RIAU | 66.49 | 19.56 | 2.95 | 2.95 |
| 11. | JAMBI | 82.29 | 24.41 | 0.33 | 3.58 |
| 12. | BENGKULU | 93.27 | 15.84 | 0.22 | 3.41 |
| 13. | LAMPUNG | 91.73 | 19.29 | 0.74 | 2.80 |
| 14. | BALI | 80.60 | 16.79 | 0.57 | 4.28 |
| 15. | NTT | 93.45 | 16.52 | 1.20 | 3.65 |
| 16. | NTB | 108.41 | 12.92 | 1.98 | 5.62 |
| 17. | PAPUA | 71.65 | 19.95 | 0.84 | 2.81 |
| 18. | MALUKU | 78.61 | 14.72 | 2.67 | 3.25 |
| 19. | SULUT | 109.62 | 14.70 | 0.81 | 2.95 |
| 20. | SULSEL | 113.21 | 21.91 | 1.39 | 3.99 |
| 21. | SULTENG | 107.27 | 32.29 | 4.49 | 1.59 |
| 22. | SULTENGARA | 92.02 | 22.53 | 1.33 | 5.10 |
| 23. | KALTIM | 56.78 | 20.83 | 7.45 | 2.50 |
| 24. | KALBAR | 86.80 | 16.87 | 0.17 | 3.33 |
| 25. | KALSEL | 55.77 | 18.22 | 1.83 | 1.27 |
| 26. | KALTENG | 71.88 | 23.75 | 0.84 | 3.41 |
| | Minimum | 55,77 | 12,30 | 0,17 | 1,27 |
| | Maksimum | 113,21 | 32,29 | 4,49 | 5,62 |
| | Rata-rata | 78,57 | 18,33 | 2,13 | 3,10 |

Sumber : - Statistik Perbankan Indonesia/www.bi.go.id/diunduh 09 Mei 2013, diolah.
- Ekofin Consulting, 2013

From Table 4.1. above, the average value of LDR achieved until December 31st, 2012 amounted to 78.57%. That is BPD throughout Indonesia have been able to carry out the functions of bank intermediation through fund raising and lending of 78.57% lower than the national banks (83.58%), and other groups such as State Banks (79.84%); Private National Banks (81.58%); Non-foreign Exchange Banks (82.73%); Joint Banks (115.63%) and Foreign Exchange Banks (111.21%) (Indonesian Banking Statistics, 2013). But it's still in the range of LDR determined by Bank Indonesia, namely:

1. The lower limit of the LDR target by 78% (seventy-eight percent).
2. The upper limit of the LDR target:
 - a. of 100% up to the date of December 1st, 2013, and
 - b. by 92% from the date of December 2nd, 2013.

The lowest value of LDR is 55.77% is achieved by BPD South Kalimantan, while the highest value of LDR is 113,21 % achieved by the BPD South Sulawesi.

The average value of CAR is achieved until the period December 31st, 2012 amounted to 18.33% is above the minimum capital requirement of 8% as required by Bank Indonesia. The highest CAR of 32.29% was achieved by the BPD Southeast Sulawesi and the lowest CAR of 12.30% achieved by the BPD DKI. By looking at the average value of the CAR indicates that BPD still has the ability to raise capital through credit intermediation function.

The average value achieved NPLs period of December 31st, 2012 was 2.13%. The highest NPL value of 4.49% was achieved by BPD South East Sulawesi and the lowest NPLs amounted to 0.17% achieved by BPD West Kalimantan. By looking at the average value of the NPL shows that the credit risk was faced by BPD are at moderate albeit under tolerance required by Bank Indonesia at 3% - 6%. It means being able to control the risk of BPD lending. Because if NPLs rise feared to disrupt the BPD's ability to improve the function of intermediation through lending.

The average value achieved ROA period December 31st, 2012 was 2.13%. The highest ROA value of 5.62% achieved by the West Nusa Tenggara and the lowest ROA amounted to 1.27% achieved by the South Kalimantan. By looking at the average value of the ROA show that all BPD able to get profit from all their assets. The average value of ROA is above that required by Bank Indonesia at 1.25%. This means that the income earned from BPD still has the ability to improve the function of intermediation through lending.

4.2. Multiple Linear Regression Analysis

Multiple linear regression analysis was used to determine basically dependence of dependent variable with one or more independent variables (independent variables), with the aim of estimating or predicting the average of population data or average value of the dependent variable based on the value of the independent variable known (Gujarati, 2003). By regression analysis it can be seen whether there is influence between independent variables with the dependent variable. The results of multiple linear regression analysis in this study can be seen in the following table below:

Tabel 4.2. Hasil Uji Regresi Linier Berganda Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|------------|-----------------------------|------------|---------------------------|--------|------|
| | B | Std. Error | Beta | | |
| (Constant) | .645 | .061 | | 10.556 | .000 |
| 1 CAR | -.538 | .266 | -.168 | -2.020 | .046 |
| NPL | -.001 | .754 | .000 | -.001 | .999 |
| ROA | 9.768 | 1.386 | .610 | 7.046 | .000 |

a. Dependent Variable: LDR
Sumber : Output SPSS 20.0

Based on Table 4.2. above the regression equation as follows :

$$LDR = 0.645 - 538X_1 - 0.001X_2 - 9.768X_3$$

From the equation above it can be explained as follows:

1. Constant value (a) of 0.645, which means a negative constant value. This shows if the CAR (X_1), NPL (X_2), and ROA (X_3), has a value of zero, then the LDR (Y) increase by 0.645
2. Regression coefficient for the variable CAR (X_1) is -0.538, indicating the direction of the relationship between CAR (X_1) with LDR (Y), meaning that if the addition of CAR (X_1) for every one unit, assuming other variables constant, the LDR (Y) decreased by 0.538. And vice versa, if there is a reduction of CAR (X_1) of the unit it will increase the LDR (Y) equal to 0.785.
3. Regression coefficient for the variable NPL (X_2) is -0.001, indicating a negative relationship between the NPL (X_2) with LDR (Y), meaning that if there is additional NPL (X_2) per unit, assuming other variables remain the LDR (Y) was reduced by 0,001. And vice versa if there is a reduction in NPL (X_2) of the unit it will increase the LDR (Y) equal to 0.836.
4. Regression coefficient for the variable ROA (X_3) is 9.768 which means it has a positive value, it indicates the direction of the relationship between ROA (X_3) with LDR (Y), meaning that if there is additional ROA (X_3) of one unit, assuming other variables remain the will add to the LDR (Y) of 9.768. Otherwise any such reduction occurred ROA (X_3) by one percent then it will reduce the LDR (Y) equal to 9.768.

4.3. Analysis of Correlation Coefficient and Coefficient of Determination

Correlation coefficient analysis was used to determine the direction and the strong relationship among the five independent variables are the variable CAR (X_1), NPL(X_2), and ROA (X_3), with LDR dependent variable (Y).

Table 4.3. Test Results Correlation Coefficient and Coefficient of Determination Model Summary^b

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1 | .591 ^a | .349 | .329 | .1050029 | 1.611 |

a. Predictors: (Constant), ROA, CAR, NPL

b. Dependent Variable: LDR

Sumber : Output SPSS 20.0

Based on Table 4.3. above, it can be concluded that the variable CAR (X_1), NPL (X_2) and ROA (X_3) with LDR dependent variable has a value of correlation (r) 0.591, meaning that the correlation (relationship level) CAR (X_1), NPL (X_2), ROA (X_3), with LDR dependent variable (Y) are in moderate correlation (Sugiyono, 2009).

While the coefficient of determination analysis is used to determine the contribution effect of CAR (X_1), NPL (X_2), and ROA (X_3), with LDR dependent variable (Y) is expressed as a percentage. Analysis of the coefficient of determination is squaring the correlation value (r^2). Based on Table 4.3. above that the R^2 value of 0.349. So when multiplied by 100%, the contribution or effect of variable CAR (X_1), NPL (X_2) and ROA (X_3) with LDR dependent variable (Y) is 34.9% indicating that CAR (X_1), NPL (X_2), and ROA (X_3) accounted for 34.9% of the LDR (Y), while the remaining 65.1% thought to be influenced by other variables not examined.

4.4. Partial Significance Test (t-test)

To examine hypotheses on the significance of the partial models, used t- test. It is intended to determine the effect of partially independent variables (CAR, NPL and ROA) on the dependent variable (LDR). Partially influence of the five independent variables to the independent variables LDR, shown in the following table:

Table 4.4. Partial Test Results (t-test)

| Model | t-count | t-table | Sig | Description |
|------------|---------|---------|------|-----------------|
| (Constant) | 10.556 | | .000 | |
| 1 CAR | -2.020 | 1.983 | .046 | Significant |
| NPL | -.001 | 1.983 | .999 | Not Significant |
| ROA | 7.046 | 1.983 | .000 | Significant |

a. Dependent Variable: LDR
Sumber : Output SPSS 20.0

Based on Table 4.4. Partial test results (t-test) of the above, it can be argued that:

1. Effect of Capital Adequacy Ratio (CAR) of the Loan to Deposit Ratio (LDR).

Partial test results between the Capital Adequacy Ratio (CAR) with a Loan to Deposit Ratio (LDR) shows the t-test value of - 2.020 is greater than t-table (1.983) with a significant value of 0.046 which is below 0.05. This means that the Capital Adequacy Ratio (CAR) effects on Loan to Deposit Ratio (LDR). Thus hypothesis H1 stating CAR positive effect on LDR is acceptable.

The test results are in line with previous research conducted by Soedarto (2004); Nasirudin (2005); Buchory (2006); Budiawan (2008); Tangko (2012); Tamtomo (2012); Mbizi (2012) and Sitorus (2013) which states that Capital Adequacy Ratio (CAR) positive and significant effect as an indicator of the implementation of banking intermediation function. However, contrary to the results of research Utari and Haryanto (2011) which states the results showed that CAR is not significant positive effect on the LDR with a significance level of $0.192 > 0.050$.

2. Effect of Non-Performing Loans (NPLs) of the Loan to Deposit Ratio (LDR).

Partial test results between non-performing loans (NPLs) to loan to deposit ratio (LDR) shows the t-value of - 0.001 less than the t-table (1.983) with a significant value of 0.999 which is above 0.05. This means that the non-performing loans NPL does not affect the loan to deposit ratio (LDR). Thus the hypothesis H2 which states NPL negatively affect the LDR rejected. This mean NPL in BPD did not have a significant impact on the implementation of banking intermediation by BPD because the average NPL rate in BPD is relatively small. NPL is relatively small indicating that the credit risk faced by small BPD as a result of good credit management.

The test results are in line with the results of the study Soedarto (2004) Non-performing loans (NPLs) positive and significant effect on bank credit. However, in contrast to previous studies conducted Pratama (2010); Harmanta and Ekananda (2005); Nasirudin (2005); Utari and Haryanto (2011); Tamtomo (2012); Tangko (2012) that the partial, non-performing loans variable negative effect and significant to the LDR. Meanwhile, according to research results Budiawan (2008) which states NPL and no significant negative effect on bank credit.

3. Effect of Return On Assets (ROA) of the Loan to Deposit Ratio (LDR).

Partial test results between Return On Assets (ROA) with the Loan to Deposit Ratio (LDR) shows the value of 7.046 t-test where the value is greater than t-table (1.983) with a significant value of 0.000 which is below 0.05. This means that the Return On Assets (ROA) effect on Loan to Deposit Ratio (LDR). Thus hypothesis H3 which states ROA has a positive effect on LDR is acceptable. The test results are in line with previous research conducted by Tamtomo (2012) which states that the Return On Asset positive and significant effect on LDR. However, in contrast to the results of research Utari and Haryanto (2011) which states the results showed that ROA is not significant negative influence on the LDR with a significance level of $0.560 > 0.050$.

4.5. Simultaneous Significant Test (F-Test)

F - test was conducted to determine the effect of independent variables (CAR, NPL and ROA) together (simultaneously) to the dependent variable (LDR). Simultaneous influence of the five independent variables to the independent variables LDR, shown in the following table:

Table 4.5. Simultaneous Test Results (F-test)

| ANOVA ^a | | | | | |
|--------------------|----------------|-----|-------------|--------|-------------------|
| Model | Sum of Squares | df | Mean Square | F | Sig. |
| 1 Regression | .591 | 3 | .197 | 17.854 | .000 ^b |
| Residual | 1.103 | 100 | .011 | | |
| Total | 1.693 | 103 | | | |

a. Dependent Variable: LDR

b. Predictors: (Constant), ROA, CAR, NPL

Based on the results of the F-test calculations in Table 4.5. The above obtained F-count of 17.854 larger than the F-table (2.1400) with a significance value (sig) of 0.000 is smaller than 0.05. This means that the independent variables (CAR, NPL and ROA) simultaneously significant effect to dependent variable (LDR). Thus the H4 hypothesis which states CAR, NPL and ROA effect on LDR is acceptable. The test results are in line with previous research conducted by Prayudi (2011) that the variable CAR, NPL, BOPO, ROA and NIM with the F test, jointly affect the LDR. Furthermore, according to Siringoringo (2012) research results, that is simultaneously affect the capital structure of the Bank intermediation function. And Tangko (2012) research results, showed that the variables significantly influence LDR CAR and NPL variable has a significant negative effect on LDR. Similarly, the results of research Sitorus (2013) which states that the Capital Adequacy Ratio (CAR), Return on Assets (ROA), net interest margin (NIM) and Operational Cost of Operational Earnings (BOPO) influence the Loan to Deposit Ratio (LDR). Nasirudin (2005) research results, CAR and NPL find a significant effect on LDR. While the Tamtomo (2012) research results found that during the study period partially, variable Adequacy Capital and Return on Assets Ratio positive and significant effect on LDR companies, non-performing loans and a significant negative effect on LDR company, while the Third Party Funds no effect on LDR company. The results of this study showed that the variables significantly influence LDR CAR and NPL variable has a significant negative effect on LDR. But according to Utari and Haryanto (2011) The results Showed that the independent variables and the CAR is not significant positive influence on the LDR with a significance level of $0.192 > 0.050$, NPL has a significant negative influence on the LDR with a significance level of $0.000 < 0.050$. ROA is not significant negative influence on the LDR with a significance level of $0.560 > 0.050$, BOPO has a significant positive effect on the LDR with a significance level of $0.001 < 0.050$. The five variables influence by 24.4% against the level of liquidity proxies LDR.

5. CONCLUSION

Based on the background, the formulation of the problem, hypotheses, methods and research results and discussion, some conclusions can be drawn as follows:

1. In 2012 BPD (Regional Development Bank) throughout Indonesia are able to carry out banking intermediation function as measured by the Loan to Deposit Ratio (LDR) of 78.57%, still lower than the national banks and other banks, but still within the range of the LDR is determined by Bank Indonesia. Lowest LDR value reached by the BPD South Kalimantan, while the highest LDR value achieved by the BPD South Sulawesi.
2. Based on the test results in partial variable of CAR and ROA significantly affect the LDR variable but NPL variable no significant influence on LDR variable. While based on the test results simultaneously variable of CAR, NPL and ROA, significantly influence to LDR variable.
3. The amount of the contribution or influence variable of CAR, NPL and ROA to the dependent variable of LDR is 34.9% while the remaining 65.1% thought to be influenced by other variables not examined in this study.

REFERENCES

- Al-Abedallat and Al-Shubiri, 2013. Analysis The Determinants of Credit Risk in Jorfaianan Banking : An Empirical Study. Journal Management Research and Practice, Volume 5 Issue 3 / September 2013. pp: 21-30. ISSN 2067- 2462
- Amrani, Riski Fitri, 2012. Analysis of the Effect of CAR, NPL, ROA AND NIM Against LDR On State-owned Bank in Indonesia Period 2006-2010, Thesis, Management Department Faculty of Business and Economic, Hasanuddin University, Makasar
- Astohar, 2012. The Role of Net Interest Margin (NIM) in Strengthen Effect on the Loan to Deposit Ratio (LDR) of changes in Earnings On a Devisa Bank Registered in Indonesian Bank 2006-2009. Economic Focus Journal, STIE (Economic School) Pelita Nusantara Semarang, No. 1 Volume 7, June 2012, ISSN 19076304.
- Bank Indonesia, Bank Indonesia Regulation (PBI) No. 14/18/PBI/2012 on November 28th, 2012 on The Minimum Capital Adequacy of Commercial Banks, Capital for Commercial Banks Headquartered in Indonesia.
- Bank Indonesia, Circular Letter (SE) No.13/24/DPNP on October 25th, Subject : Valuation of Level Commercial Bank Soundness
- Bank Indonesia, Circular Letter (SE) No. 15/41 / DKMP, October 1st, 2013 Subject: Calculation of Minimum statutory Reserved Demand Deposit and Compulsory Demand deposit by Loan to Deposit Ratio in Rupiah.
- Bank Indonesia, Publication of Banking Financial Statement / www.bi.go.id / downloaded on February 4th, 2013.
- Bank Indonesia, Indonesian Banking Statistics, Volume 11, No.. 7, June 2013.a registered in Indonesian bank Bank 2006-2009, Economic Focus Journal, STIE (Economic School) Pelita Nusantara Semarang, Edition No. 1 Volume 7, Juni 2012, ISSN: 19076304
- Buchory, Herry Achmad, 2006. The Influence of Financial Intermediary Function Implementation, Risk Management Application and Bank Capital Structure on Banking Financial Performance, Disertasi Fakultas Ekonomi, Universitas Padjadjaran Bandung.
- Budiwiyono, Eko, 2012. BPD (Regional Development Bank) For Strength In Accelerating Implementation of Regional Autonomy: Prospects and Problems, Papers Presented at the National Seminar on Indonesian Economist Association, Yogyakarta, 2012.
- Budiawan. 2008. Analysis of Factors Affecting the Distribution of Credit in Rural Bank (BPR) Case Study at Bank Indonesia Banjarmasin. Thesis, Magister Management Study Program of Diponegoro University Semarang
- Cade, Eddie. 1997. *Managing Banking Risk*. London : Gresham Books, Cambridge.
- Culp, Christopher L. 2001. *The Risk Management Process, Business Strategy and Tactics*. New York : John Willey & Sons, Inc.
- Ekofin Konsulindo, Banking & Financial Consultants, 2013. Indicators and Directory of Indonesian Banking in 2012.

- Gardner, Mona J., Dixie L. Mills, Elizabeth S. Cooperman, 2000. *Managing Financial Institutions : An Assets/Liability Approach*. New York : Dryden Press.
- Global Association of Risk Professionals, 2001., *GARP Old Exam Review, Sample Exam Workbook*.
- Graddy, Duane B., Austin Spencer, William H. Brunsen, 1985. *Commercial Banking and The Financial Services Industry*. First Edition. Virginia : Reston Publishing Company Inc., A Prentice-Hall Company.
- Granita, Jen Kharisa, 2011. Influence Analysis of deposits, CAR, ROA, NPL, NIM, BOPO, Interest Rates, Inflation and Exchange Rate Against LDR (Studies in National Private Exchange Bank 2002-2009 period). Thesis in Bachelor Program Economic Faculty Diponegoro University, Semarang
- Gujarati, Damodar, 2003. *Basic Econometric*, Fourth Edition. New York : Mc. Graw-Hill Book Co.
- Harmanta and Mahyus Ekananda. 2005. Disintermediation Function Post-Crisis Banking in Indonesia 1997: Factors Bid or Loans, A Model Approach to Disequilibrium. *Bulletin of Monetary Economics and Banking*. Bank Indonesia, June 2005
- Haruna, Muhammad Auwalu, 2011. Determinant of Cost of Financial Intermediation in Nigeria's Pre-consolidated Banking Sector, Department of Accounting Ahmadu Bello University, Zaria, Nigeria
- Hempel, George H., Simonson Donald G., Coleman Alan B., 1994. *Bank Management Text and Cases*, Fourth Edition. New York : John Wiley & Sons, Inc.
- Karim, Mohd Zaini, Sok-Gee Chan, Sallahudin Hassan, 2010. Bank Efficiency and Non Performing Loans : Evidence From Malaysia and Singapore, *Prague Economic Papers*, No. 2, 2010.
- Keputusan Menteri Dalam Negeri No. 62 year 1999 on Guidelines for Organization and Work of Regional Development Banks
- Kidwell, David. S, Richard I. Petterson, 2000. *Financial Institution. Market and Money*. New York : Dryden Press.
- Koch, Timothy W., 2000. *Bank Management*, International Edition. Orlando : The Dryden Press, Harcourt Brace College Publishers.
- Mahran, Hatim Ameer, 2012. Financial Intermediation and Economic Growth in Saudi Arabia: An Empirical Analysis, 1968-2010. *Jurnal Modern Economy* Volume 3. Issue 5 (Sept. 2012): p. 626-640.
- Mbizi, Ranga (2012). An Analysis of the Impact of Minimum Capital Requirements on Commercial Bank Performance in Zimbabwe, *International Journal of Independent Research and Studies – IJIRSISSN: 2226-4817; EISSN: 2304-6953* Vol. 1, No.4 (October, 2012) 124-134
- Mishkin & Eakins, 2006. *Financial Market & Institutions*, Chicago : Richard D. Irwin
- Nasirudin, 2005. Analysis of Factors Affecting the Loan to Deposit Ratio (LDR) at Rural Bank in Region Job Bank Indonesia Semarang. Thesis Magister Management Study Program of Diponegoro University Semarang.
- Oktaviantari, Luh Putu Eka and Ni Luh Putu Wiagustini, Effect of Banking Risk To Profitability on Rural Banks in Badung, Economic Faculty Udayana University, Bali, Indonesia
- Odedokun, M.O. (1998). Financial intermediation and economic growth in developing countries, *Journal of Economic Studies*, Vol. 25 Issue : 3 p. 203 – 224.
- Pratama, Billy Arma, 2010. Analysis of Factors Affecting Bank Lending Policy (Study on Commercial Banks in Indonesia Period 2005-2009).
- Prayudi, Arditya, 2011. Pengaruh *Capital Adequacy Ratio (CAR)*, *Non Performing Loan (NPL)*, *BOPO*, *Return On Asset (ROA)* dan *Net Interest Margin (NIM)* terhadap *Loan to Deposit Ratio (LDR)*, papers.gunadarma.ac.id/index.php/mmanagement/article/.../14225
- Rose, Peter, S., 2002. *Commercial Bank Management*. Chicago : Richard D. Irwin, Inc.
- Rose & Hudgins, 2008. *Bank Management*. Chicago : Richard D. Irwin, Inc.
- Schroeck, Gerhard, 2002. *Risk Management and Value Creation*. New Jersey : John Wiley & Son, Inc.
- Sentausa, Sentot A. 2009. Banking Ask Bank Indonesia Easing Rules. *Kompas.com*. Wednesday March 25th, 2009
- Siringoringo, Renniwyat, (2012). Characteristics and Functions of Banking Intermediation in Indonesia. *Bulletin of Monetary Economics and Banking*, Bank Indonesia, July 2012
- Sitorus, Vera Yohana, 2013. Analysis of Factors influence Non Performing Loan (NPL) at Go Public Bank at Indonesia Stock Exchange period 2005 -2011, © 2013 sciencegate.ch, Point Software AG, Zürich.
- Soedarto, Mochamad. 2004. Analisis Faktor - factor that affects Distribution Rural Credit Bank (BPR (Rural Bank) Case Study in Work Area Bank Indonesia Semarang). Thesis Magister Management Study Program Diponegoro University Semarang
- Sugiyono (2009), *Research Methods*, Jakarta: Salemba Empat.
- Supriyanto, Eko.B., Indonesian Banking Challenges in 2013, Bureau of Research Infobank, Jakarta.
- Tamtomo, Handy Setyo, 2012. Effect of CAR, NPL, ROA Against LDR Indonesia Banking Company, *Journal of Accounting and Banking*, Volume 1, Number 1, 2012.
- Tangko, Irene Lastry Fardani, 2012. Analysis of Effect of Capital Adequacy Ratio (CAR) and Non-Performing Loans (NPLs) of the Loan to Deposit Ratio (LDR) in the state-owned bank in Indonesia, Thesis Management Departemen Economic and Business Faculty, Hasanudin University Makasar.
- Utari, Mita Puji and Haryanto, A. Mulyo (2011) Analysis of Effect of CAR, NPL, ROA and BOPO on LDR (Case Studies in National Private Exchange Bank in Indonesia Period 2005-2008). Undergraduate thesis, Diponegoro University Semarang.
- Undang-Undang (LAW) No. 7 year 1992 as amended in 10 1998 on Banking
- Undang-undang (LAW) No. 62 year 1999 Main Provisions of the Regional Development Banks