Conference Paper

Determinant of Credit Distribution: Indonesian Banking Evidence

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Abstract

This paper discusses empirical research of the effect of bank internal variables, that is calculated from the ratio of a bank's soundness, such as capital adequacy ratio (CAR), loan to deposit (LDR), non performing loan (NPL), and net interest margin (NIM),in granting credit. This research uses a sample of 24 commercial banks that is listed in Indonesian Capital Market for the fiscal year ended in December 31, 2014 to 2017.The total data observed is 96. The data is obtained from Indonesian Capital Market Directory, Indonesian Stock Exchange database, and company annual reports. Analytical techniques used was multiple linear regression using OLS (Ordinary Least Square) and processed by the SPSS program 15. Result obtained from the hypothesis test is the variable capital adequacy ratio (CAR) and the net interest margin (NIM) has positive significant influence on credit distribution. Variable loan to deposit ratio (LDR) is positive but doesn't have significant effect on credit distribution. Variables of non performing loan (NPL) is negative and have significant effect on credit distribution.

Keywords: Credit Distribution, CAR, LDR, NPL, NIM

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1. Introduction

Law of the Republic of Indonesia No. 10 of 1998 concerning Banking states that banks are business entities that collect funds from owners of capital by channeling to users of funds. Under the Act, banks are strategic financial institutions and greatly affect the economy so that the government is very strict in monitoring to avoid potential systemic risks that can backfire on the national economy as happened during the 1997 monetary crisis. At that time the monetary crisis hit the Indonesian economy which had an impact on banks in the form of negative spreads, namely the savings interest rate was greater than the loan interest rates (Sudiyatno and Suroso, 2010) so as to relieve public trust in banking institutions, which in turn weakened the banking intermediation function (Pratama, 2010).

In the relation of intermediation function, credit is the most important activity of the bank in generating profits. This is because the source of financing in the business sector

in Indonesia is still dominated by bank lending. Credit distribution allows people to invest, distribute, and also consume goods and services, considering that all investment activities, distribution, and consumption are always related to the use of money (Pratama, 2010). Whereas Adnan et al. (2016), states that credit distribution by banks can help the community in carrying out their activities, whether consumptive activities or productive activities and can provide benefits to banks in the form of interest earned in return for funds that have been lent to the community.

In general, the level of bank lending continues to increase every year. Based on financial report data published by banking companies listed on the IDX from 2011 to 2015, bank lending continued to increase (Adnan et al., 2016). In 2011 to 2014 respectively, the number of loans disbursed was Rp1,703 trillion, Rp2,098 T, Rp2,515 T, and Rp2,802 T. Whereas for 2015 the amount of credit that were distributed by the bank to the public amounted to Rp3.121 trillion. Although overall lending has increased, in several banks such as Bank Dananon, Bank Permata and Bank Mega, there was a decline in lending in 2014-2015 (Adnan et al., 2016).

The increase or decrease in lending can be caused by many factors, one of which is the Loan to Deposit Ratio (LDR). In accordance with Bank Indonesia Circular Letter No. 6/23 / DPNP dated May 31, 2004, that the LDR ratio is calculated from the distribution of loans given to third parties (not including interbank) with Third Party Funds (TPF) which includes demand deposits, savings and time deposits (not including interbank). The higher the LDR shows the greater the third party funds used for lending, which means that the bank has been able to carry out its intermediation function properly. In the 2011-2015 period, the LDR obtained by Commercial Banks was still in the range of 74.58% -83.58%. So that it is still below the expectations of Bank Indonesia, ideally around 85% -110%. So that it can be said that the bank has not been optimal in carrying out the intermediary function.

In addition to the LDR which is one of the many internal factors, external factors can also cause credit distribution (Triandaru and Budisusanto, 2006: 113). Previous research (Febrianto and Muid, 2013; Sari, 2013; Malede, 2014; Yuliana, 2014; Adnan et al., 2016) have identified internal factors that can affect lending such as Company Size, Third Party Funds (DPK), Return On Asset (ROA), and Non Performing Loans (NPL). While external factors are the BI Interest Rate, Gross Domestic Product (GDP) and Inflation.

In carrying out operational activities, especially lending, banking management needs to pay attention to rules that have been set up like the rules regarding bank health assessment. Do not let the credit that is channeled can cause the health of the bank to be not good, such as loans disbursed not smooth payment (bad credit) or commonly

called the Non Performing Loan (NPL) (Meydianawathi, 2007; Arianti et al., 2016). The amount of Non Performing Loans (NPL) has been determined by Bank Indonesia, which is equal to 5%. A high NPL value will cause the funds disbursed through credit to also decrease because the bank must form a larger reserve.

To facilitate banking operations, banks need capital for business development and safeguard the possibility of risks, such as the risk of bad loans. Capital or often measured using the Capital Adequacy Ratio (CAR) ratio shows the adequacy of bank capital in bearing the risks that may arise due to bank operational activities (Sari, 2013). The greater the CAR ratio, the greater the likelihood of banks to channel loans (Yuliana, 2014; Arianti et al., 2016; Adnan et al., 2016).

Therefore, based on the explanation above, this study will reexamine the influence of internal factors such as LDR, NPL and CAR on lending. The thing that underlies this research is the results of previous inconsistent studies, such as the LDR which have a positive effect on lending (Yuwono, 2012; Adnan et al., 2016). While the research conducted by Yulhasnita (2014) found that the LDR did not affect credit distribution. Through his research Meydianawathi (2007), Arisandi (2008), Pratama (2010) and Arianti et al., (2016) found that Non Performing Loans (NPL) had a negative and significant influence on credit distribution. While different results were found by Satria and Subegti (2010) and Yuwono (2012) stated that NPL did not affect bank credit. Likewise the findings related to the effect of CAR on lending, also obtained inconsistent results. Satria and Subegti (2010), Adnan et al. (2016) and Arianti et al. (2016) found that CAR had a positive and significant effect. While the results of the Pratama (2010) CAR research have a significant negative effect on bank credit.

Besides the inconsistency of the results of previous studies, the thing that underlies this research is the fact that Commercial Bank Loan to Deposit Ratio (LDR) is still below the expectations of Bank Indonesia (85% -110%), on the other hand more than 95% of Third Party Funds (DPK) national banking is in Commercial Banks. Research is a development of previous studies such as the research of Satria and Subegti (2010), Pratama (2010), Sari (2013), Yuliana (2014), and Adnan et al. (2016) by modifying the independent variable in the form of adding the variable Net Interest Margin (NIM). Therefore, the question posed in this study is what internal factors can affect bank credit? So the purpose of this study is to reexamine the influence of bank internal variables which are usually seen from the bank's soundness level such as capital aspects or capital adequacy ratio (CAR), liquidity aspects or loan to deposit (LDR), credit collectibility aspects or non performing loans (NPL), and the aspect of net interest margin (NIM) on the dependent variable, namely credit distribution.

1.1. Credit Management

Law number 10 of 1998 concerning Banking states that credit is the provision of money or bills that can be equalized based on a loan agreement or agreement to repay the debt after a certain period of time with the amount of interest. When a bank determines a lending decision, the goals to be achieved are safe, directed and generate income. Safe in the sense that the bank will be able to accept back the economic value that has been submitted, the purpose of which is that the use of credit must be in accordance with predetermined credit planning, and produce means that the credit must contribute income to banks, debtor companies, and the general public (Taswan, 2010: 125). According to Kasmir (2012: 80) the main objectives in granting credit are:

1. To seek profits for the bank, in the form of interest in administrative fees, provision and other fees charged to the debtor.
2. To help business customers who need funds, both investment funds and funds for working capital, so customers can develop their business.
3. To help the government in increasing development in various sectors. Benefits obtained through credit include, among others, tax revenues, opening employment opportunities, increasing the number of goods and services, saving foreign exchange, especially for previously imported products, and increasing foreign exchange through exports.

The elements contained in the provision of a credibility facility are as follows (Kasmir, 2012: 84):

1. Trust. That is a creditor's belief that the credit provided will be truly received in the future. This trust is given by the bank, which has previously been conducted research and investigation about customers both internally and externally. Research and investigation about past and present conditions for credit applicants.
2. Agreement. That is an agreement between the lender and the recipient of the credit. This agreement is stated in an agreement where each party signs its rights and obligations.
3. Period. Every credit given has a certain period of time, this period includes the agreed repayment period. This period can be in the form of short term, medium term, or long term.
4. Risk. The existence of a grace period will cause a risk of uncollectible / default credit. The longer a credit the greater the risk and vice versa. This risk is borne by

the bank, both intentional risks by negligent customers, as well as by unintentional risks.

5. Reward. It is an advantage over the provision of a credit or service that we know by the name of interest. Reward in the form of interest and credit administration fees are bank benefits. Whereas for banks based on sharia principles, their services are determined by profit sharing.

Before credit is given, the bank must feel belief that the credit provided will truly return (Darmawi, 2014: 105). This beleive was obtained from the results of credit research before the credit was distributed. Credit assessment by banks can be done with various principles to get confidence about their customers. According to Sinungan (2000: 76) in general in determining credit policy several important factors must be considered, namely:

1. Current bank financial situation. Management sees it from the financial strength of the bank, including the amount of deposits, savings, current accounts and credit amounts.
2. Bank experience in several years, especially those related to funds and credit. Look at how the fluctuations, especially regarding the number and duration of deposition, the smoothness of the loans given, and so on.
3. The state of the economy, must be studied carefully and related to the experience and stability of the banks in the past as well as estimates of future conditions.
4. Kemampuan dan pengalaman organisasi perkreditan bank. Yang dimaksud disini apakah dalam pengelolaan kredit bank tetap *survive* dan bahkan meningkat terus atau tidak. Apakah organisasi kredit yang ada telah benar-benar efektif dan dalam pelaksanaannya terdapat efisiensi. Apakah pejabat-pejabat kredit adalah tenaga-tenaga *qualified*, mempunyai *skill* yang baik, dan sebagainya.
5. Bagaimana hubungan yang dijalin dengan bank-bank lain yang sejenis.

1.2. Capital Adequacy Ratio (CAR)

Capital adequacy ratio (CAR) is a capital ratio that shows the ability of banks to provide funds for business development needs and accommodate the risk of loss of funds caused by bank operations (Darmawi, 2014: 97). CAR is a ratio that shows how all bank assets that contain risks (credit, participation, securities, bills on other banks) which are

also financed from the bank's own capital funds in addition to obtaining funds from sources outside the bank, such as funds from community, loans, etc. (Dendawijaya, 2005).

CAR shows how much bank capital is sufficient to support their needs and as a basis for assessing the prospects for the continuation of the bank's business. The greater the capital adequacy ratio (CAR), the greater the resilience of the bank concerned in the face of depreciation of bank assets arising from the existence of troubled assets. In short, it can be said that the value of CAR will increase banking confidence in lending. With CAR above 20%, banks can spur credit growth of up to 20-25 percent a year (Wibowo, 2009). Based on Bank Indonesia Regulation No. 10/15 / PBI / 2008 Article 2 paragraph 1 states that banks are required to provide a minimum capital of 8% of risk-weighted assets (RWA). The use of RWA in calculating CAR aims to change the ratio of assets in accordance with the risk in order to create a safer banking system (Darmawi, 2014: 97).

1.3. Loan to Deposit Ratio (LDR)

Loan to deposit ratio (LDR) is a comparison between the total credit provided with the total third party funds (DPK) that can be collected by banks (Kasmir, 2012: 319). In other words, the LDR states how far the bank is able to repay funds withdrawals made by depositors by relying on loans given as sources of liquidity (Rivai et al., 2007: 394). The LDR will show the bank's ability to channel third party funds collected by the bank concerned. The maximum LDR allowed by Bank Indonesia is 110%.

As a ratio that can measure the level of liquidity of a bank, an LDR that is too high indicates that banks are relatively not liquid and at risk of not being able to fulfill the withdrawals that will be made by depositors (Latumaerissa, 1999: 23). Conversely, if the LDR ratio is too low, it indicates that the bank is relatively liquid or the bank has excess funds that can be loaned to prospective debtors and this shows that the loans disbursed by banks are still low (Yuliana, 2014).

1.4. Non Performing Loan (NPL)

Non-performing loan (NPL) is the rate of return on credit given by depositors to banks, in other words, NPL is the level of bad credit at banks. Darmawan (2004) states that NPL is a benchmark used to measure the ability of banks to cover the risk of failure of credit returns by debtors. NPL reflects credit risk, the smaller the NPL, the smaller the credit risk borne by the bank. Banks in providing credit must analyze the ability of

the debtor to repay its obligations. After credit is given, the bank is obliged to monitor the use of credit and the ability and compliance of the debtor in fulfilling its obligations (Murdiyanto, 2012).

Bank Indonesia regulations in Circular Letter No. 12/11 / DPNP March 31, 2010, NPL were at 5%. The lower NPL shows that the loans disbursed are successful and safe, so the bank does not hesitate to channel its loans. Whereas the larger NPL indicates that banks are considered unprofessional in their credit management, while providing an indication that the level of risk for lending to banks is quite high in line with the high NPL faced by banks (Riyadi, 2006).

1.5. Net Interest Margin (NIM)

Net interest margin (NIM) is a comparison between net interest income to the average of productive assets. Net interest income is derived from interest income less interest expense. Productive assets that are calculated are productive assets that generate interest (bearing interest). According to Bank Indonesia regulation Number 7/2 / PBI / 2005 concerning the valuation of quality of commercial bank assets referred to as productive assets is the provision of bank funds to obtain income, in the form of loans, securities, interbank fund placements, acceptances bills, securities bills purchased with the promise of a reverse repurchase agreement, derivative bills, investments, administrative account transactions and other similar forms of funds. Therefore banks are required to maintain the quality of their productive assets in order to maintain the level of bank operational efficiency (Siamat, 2005: 89).

In addition to maintaining the quality of its productive assets and to maintain the position of the NIM it is necessary to pay attention to changes in interest rates. In achieving maximum profits there is always a risk that is commensurate. The higher the profit, the greater the risk faced. The increase in profits in relation to changes in interest rates is often called NIM (Net Interest Margin), which is the difference in interest income with interest expense.

1.6. Previous Research

Research that examines the causes of credit distribution has been carried out by several previous researchers who showed varied results. Sari (2013) conducted a study on the effect of NPL, CAR, DPK and BI rate on credit distribution. The results of the study indicate that all independent variables have a significant effect on credit distribution.

The research conducted by Yuliana (2014) with the research object of commercial banks in Indonesia for the period 2008-2013 showed that the LDR, CAR, ROA and NPL significantly affected credit distribution. Furthermore, there are studies conducted by Febrianto and Muid (2013) which examine the influence of third party funds, LDR, NPL, CAR, ROA, and BOPO on the amount of credit distribution. The results showed that third party funds and LDR had a significant positive effect on lending. While NPL, CAR, ROA and BOPO have no significant effect on credit distribution.

Research by Adnan et al. (2016), conducted two tests. The first is to test simultaneously all the independent variables. The results show that all the independent variables used affect the dependent variable or credit distribution. But when partially tested, it shows that Bank Size, Third Party Funds and LDR have a positive effect on lending. While the CAR variable does not affect credit distribution. The results of research conducted by Arianti et al. (2016) also obtained different results. Arianti et al. (2016) found that NIM and CAR had a significant positive effect on credit distribution. Whereas the results of BOPO and NPL obtained a significant negative effect on lending to banks listed on the Indonesia Stock Exchange from 2010 to 2014.

1.7. Hypothesis

1.7.1. The Effect of CAR on Credit Distribution

C*apital adequacy ratio* (CAR) is a bank's performance ratio to measure the capital adequacy of a bank to support assets that contain or produce risks, for example loans given (Dendawijaya, 2005). Based on Bank Indonesia regulations, banks that are declared to be healthy banks must have a CAR of at least 8% of risk-weighted assets (RWA). This is based on the provisions stipulated by Bank for International Settlements (BIS). The higher the value of this ratio means that the bank has enough capital to cover the risks that arise (Pujiati et al., 2013) and the greater the profit the bank gets. This is because banks are able to finance operational activities and contribute significantly to profitability. In other words, the higher the CAR, the greater the credit that can be channeled. Conversely, a low CAR indicates that banks do not have sufficient capital for credit distribution.

A high CAR indicates that banks have large capital. This means that if one day the bank suffers losses due to its operational activities such as bad credit, the bank still has sufficient capital to handle the loss, so that the parties who save their funds in the bank still feel safe (Adnan et al., 2016). The studies conducted by Satria and Subegti (2010),

Sari (2013) and Yuliana (2014) show that CAR has a significant positive effect on credit distribution. Therefore, based on the description above and the results of the previous researchers, the hypotheses that can be formulated are as follows:

Hypothesis 1: CAR has a positive effect on credit distribution.

1.7.2. The Effects of LDR on Credit Distribution

Loan to Deposit Ratio (LDR) is a ratio to measure the composition of the amount of credit given compared to the amount of public funds and own capital used. LDR is used to assess the liquidity of a bank by dividing the amount of credit given by the bank to third party funds (Restiyana, 2011). Whereas Rivai et al. (2013: 484) states that the LDR is a ratio used to assess a bank's ability to pay its short-term obligations, namely withdrawal of funds by depositors by relying on credit as a source of liquidity. The higher the ratio, the lower the bank's liquidity ability so that a bank in a troubled condition, it will get bigger. On the contrary, a low ratio indicates a liquid bank with excess capacity of funds ready to be loaned (Yuliana, 2014).

Previous studies conducted by Restiyana (2011), Roring (2013), Febrianto and Muid (2013), Yuliana (2014) and Adnan et al. (2016) shows that the LDR has a positive and significant effect on credit distribution. Based on the description above and consistent with the results of previous studies, this study can formulate the following hypotheses:

Hypothesis 2: LDR has a positive effect on credit distribution.

1.7.3. The Effects of NPL on Credit Distribution

The ratio of non-performing loans (NPL) shows the ability of bank management in managing non-performing loans that occur in banks. This ratio is used to measure the ability of banks to cover the risk of failure of credit repayment by debtors (Darmawan, 2004). The higher the NPL ratio, the worse the quality of credit that causes the number of problem loans to increase. So that banks must provide a large enough reserve fund that will be used to cover non-performing loans or bad credit and can erode bank capital (Murdiyanto, 2012). If NPLs experience a high increase, banks with the principle of prudence will only channel loans to truly worthy customers.

NPL reflect credit risk, the higher NPL will increase costs, so the bank must bear losses in its operational activities which can affect the decrease in profits (ROA) obtained by the bank which can potentially be a cause of bank losses. Bank Indonesia has set a maximum figure for the NPL ratio of 5%, if the bank is able to suppress the NPL ratio

below 5% then the potential profit to be gained will be even greater. Previous studies conducted by Mukhlis (2011), Murdiyanto (2012), Primary (2013), Sari (2013), and Yoga and Yuliarmi (2013) show that Non Performing Loans (NPL) have a negative and significant effect on lending. Based on the description above and the results of previous studies, the hypothesis can be formulated as follows:

Hypothesis 3: NPL has a negative effect on credit distribution.

1.7.4. The Effects of NIM on Credit Distribution

Net interest margin (NIM) is a ratio that shows net interest income from the average productive assets owned by the bank. Banking activities that have a large contribution to bank income are credit distribution. So that the ratio of Net Interest Margin (NIM) can also be used to see the ability of banks to manage their productive assets in the form of loans to earn interest or profits. The higher Net Interest Margin (NIM) indicates the higher the credit channeled to the public. Pratiwi and Hindasah (2014) stated that the high NIM was very good when the NIM was used to strengthen the bank's capital position in the form of increasing interest income on productive assets managed by banks, so that the net interest income earned could be replayed in the form of lending.

Previous studies conducted by Prayudi (2011), Amriani (2014) and Arianti et al. (2016) shows that Net Interest Margin (NIM) has a positive and significant influence on credit distribution. Based on the description above and the results of previous studies, the hypothesis can be formulated as follows: **Hypothesis 4: NIM has a positive effect on credit distribution.**

2. Research Model

Based on the explanations described in the literature review above and the development of the hypothesis of this study, the research models developed are as follows:

3. Methods and Equipement

3.1. Population and Samples

The population used in this study is the overall financial statements of public bank companies listed on the Indonesia Stock Exchange (IDX). Sampling in this study using

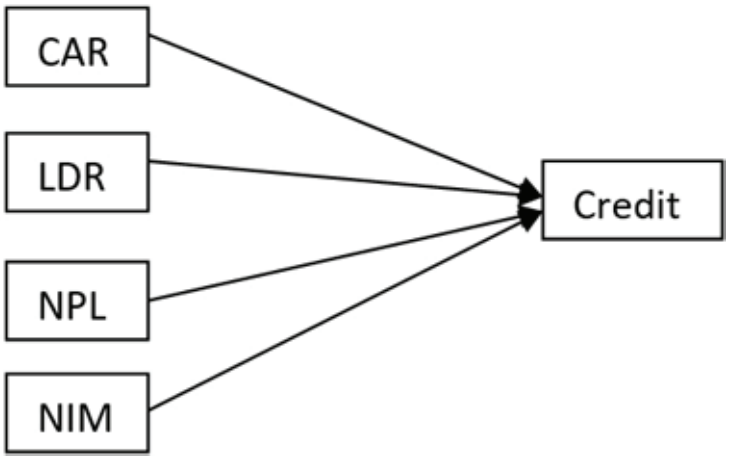

Figure 1: Research Model.

purposive sampling. Purposive sampling is done by taking samples from the population based on certain criteria. The sampling criteria are as follows:

1. Commercial banks that have go public and have been listed on the Indonesia Stock Exchange (IDX) during the research period (2014-2017 period).
2. Banks that have go public make and report financial reports published during 2014-2017.
3. The sample banks have financial data that can be calculated ratios needed in this study on financial statements for 4 consecutive years.

3.2. Types and Data Sources

The data used in this study are secondary bank commercial data listed on the IDX for the period 2014-2017 and taken using the panel data model. The data needed is in accordance with the variables used in this study, including credit distribution, CAR ratio, LDR ratio, NPL ratio, and NIM ratio. Data sources are from Bank Indonesia, Indonesian Banking Statistics, Financial Reports published on the IDX, and scientific journals and other literature related to the topic of this research.

3.3. Operational Definition of Variables

In this study, the variables used are the dependent variable and the independent variable. The dependent variable used in this study is total credit, which is known from the amount of credit channeled by the bank. Independent variables (free) are variables that influence or are the cause of changes or the emergence of the dependent variable.

The independent variables used in this study are CAR, NPL, LDR, and NIM. Following are the operational definitions of each variable:

3.3.1. Credit Distribution

Credit is the provision of money or bills that can be equalized based on a loan agreement or agreement to pay off the debt after a certain period of time with the amount of interest (Law number 10 of 1998 concerning Banking). The measurement of credit distribution in this study uses natural logarithms (Ln) of the amount of credit channeled by each.

3.3.2. Capital Adequacy Ratio (CAR)

Capital adequacy ratio (CAR) is a capital ratio that shows the ability of banks to provide funds for business development needs and accommodate the risk of loss of funds caused by bank operations. The formula used to calculate CAR (Darmawi, 2014: 97) is:

$$CAR = \frac{\text{Capital}}{\text{RWA}} \times 100\% \quad (1)$$

3.3.3. Loan to Deposit Ratio (LDR)

The loan to deposit ratio (LDR) is a comparison between the total credit provided with the total third party funds (TPF) that can be collected by the bank. The LDR will show the bank's ability to channel third party funds collected by the bank concerned. The formula used to calculate LDR (Kasmir, 2012: 319) is:

$$LDR = \frac{\text{Total Credit Given}}{Deposit + Equity} \times 100\% \quad (2)$$

3.3.4. Non Performing Loan (NPL)

Non-performing loan (NPL) is the rate of return on credit given by depositors to banks in other words, NPL is the level of bad credit at the bank. NPL is known by calculating non-current financing for total financing. The formula used to calculate NPL (SE BI Number 12/11 / DPNP March 31, 2010):

$$NPL = \frac{\text{Bad Credit}}{\text{Total Credit Distribution}} \times 100\% \quad (3)$$

3.3.5. Net Interest Margin (NIM)

Net interest margin (NIM) is a comparison between net interest income to the average of productive assets. Net interest income is derived from interest income less interest expense. While productive assets that are calculated are productive assets that generate interest (interest bearing assets). The formula used to calculate NIM (Almilia and Herdiningtyas, 2005):

$$NIM = \frac{\text{Interest Income} - \text{Interest Expense}}{\text{Average of productive assets}} \times 100\% \quad (4)$$

3.3.6. Multiple Regression Analysis

The analysis model used in this study is multiple regression analysis model with the Ordinary Least Square, so that the equation model will look as follows:

$$Y_{it} = \alpha + b_1 CAR_{it} + b_2 LDR_{it} + b_3 NPL_{it} + b_4 NIM_{it} + e \quad (5)$$

Explanation:

α: Constant

*b*1 – *b4* : Regression coefficient

Y : Credit Distribution

LDR_{it}: Capital Adequacy Ratio (CAR)

CAR_{it}: Loan to Deposit Ra*tio* (LDR)

NPL_{it}: Non Performing *Loan* (NPL)

NIM_{it}: Net Interest M*argin* (NIM)

e :*error*

4. Results

4.1. Description of Research Object

The object of this research are banking companies that are listed on the Indonesia Stock Exchange (IDX) during the period 2014-2017 and publish financial reports during the period of the study. Sampling in this study used purposive sampling and those who fulfilled the requirements as samples of this study were 24 banks. So the number of observations is 96 observation times.

4.2. Descriptive Data

In this study, the description of the variables used included 4 (four) independent variables, namely CAR, LDR, NPL, and NIM as variables that affect bank lending listed on the Indonesia Stock Exchange during 2014-2017. In this section data will be described for each variable that has been processed using SPSS version 15 and shown in Table 1.

Based on Table 1 it can be seen that with N = 96 observation times, the credit distribution variable has the lowest value (minimum) of 11.62% and the highest (maximum) of 19.59%. While the standard deviation (σ) is 3.17979% more small compared to the average value of 16.1627%. This shows that the ability of banks to channel credit is quite good. CAR variable has the lowest value (minimum) of 11.47% and the highest (maximum) of 27.69%. While the standard deviation (σ) is 5.00495% smaller than the mean value of 17.7491%. I this shows that the ability of banks in finding sources of funds to finance their activities is quite good.

Table 1: Descriptive Statistics.

Descriptive Statistics				
Minimum	Maximum	Mean		Std. Deviasi
CREDIT	11,62	19,59	16,1627	3,17979
CAR	11,47	27,99	17,7491	5,00495
LDR	45,24	105,42	83,6387	11,43162
NPL	1,21	13,28	3,4491	3,1962
NIM	2,64	17,64	7,0791	3,63713
Source: Data processed, 2019				

The LDR variable has the lowest value (minimum) of 45.24% and the highest (maximum) of 105.42%. While the standard deviation value (σ) is 11.43162% smaller than the mean value of 83.6387%. This shows that the composition of the amount of credit provided by banks is quite good. The NPL variable has the lowest value (minimum) of 1.21% and the highest value (maximum) of 13.28%. While the standard deviation value (σ) is 3.19620% smaller than the mean value of 3.4491%. This shows that the ability of banks to handle problem loans is quite good. The NIM variable shows that the lowest value (minimum) is 2.64% and the highest value (maximum) is 17.64%. While the standard deviation is 3.63713% smaller than the mean 7.0791% so that the productive assets of banks in generating interest income are good.

4.3. Multiple Regression Analysis

To test the hypothesis, this study uses ordinary least square (OLS). The classical assumption of the regression model was tested before the regression analysis was carried out. The assessment results show that the data is normally distributed, there are no problems with multicollinearity, heteroscedasticity, autocorrelation, and there are no outliers in the data.

The results of regression analysis to test hypotheses are presented in Table 2. In Panel A, it can be seen that F-statistics with a coefficient of 4.145 are significant at level 1%. This means that the research model meets the requirements for use in the analysis. Adjusted R-squared shows the number 0.212. This shows that the dependent variable, namely lending together is influenced by independent variables (CAR, LDR, NPL and NIM) of 21.2% and the remainder is influenced by other variables (residues) that were not included in this study.

In Table 2 also shows the results of the regression analysis of each variable used in this study, with the following results:

1. Constant value indicates a number of 0.177 which is positive. This can be interpreted that credit distribution will be worth 0.177 units if the fourth value of the independent variable is CAR, LDR, NPL, and NIM is fixed or zero.

2. CAR variable has a regression coefficient value that is positive that is equal to 0.230. Positive coefficient values indicate that CAR has a positive effect on lending. This illustrates that if there is an increase in CAR value by 1 unit, it will cause an increase in credit value of 0.230 units, assuming the other independent variables are considered constant.

$$Kredit_{it} = \alpha + b_1 CAR_{it} + b_2 LDR_{it} + b_3 NPL_{it} + b_4 NIM_{it} + e \quad (6)$$

1. LDR variable has a regression coefficient value that is positive that is equal to 0.136. Positive coefficient values indicate that the LDR has a positive effect on lending. This illustrates that if there is an increase in the LDR value of 1 unit it will cause an increase in the amount of the value of credit distribution by 0.136 units, assuming the other independent variables are considered constant.

2. The NPL variable has a regression coefficient that is negative which is equal to -0.831. A negative coefficient value indicates that NPL has a negative effect on lending. This illustrates that if there is a decrease in the value of NPL by 1 unit it

Table 2: Regression Analysis.

Variable	Coefficient	t-Statistic		Sig
Intersep	0,177		0,114	0,889
CAR	0,230	**	1,944	0,041
LDR	0,136		1,674	0,150
NPL	-0,831	***	-4.187	0,000
NIM	0,495	***	3,503	0,001
Adjusted R-squared	0,312			
F-statistic	4,245	***		

Source: Data processed, 2019. ** & *** show that coefficient is significant at 0.01 and 0.05 respectively

will cause an increase in the amount of the value of credit distribution of 0.831 units, assuming the other independent variables are considered constant.

3. The NIM variable has a regression coefficient value that is positive that is equal to 0.495. Posditive coefficient values indicate that NIM has a positive effect on lending. This illustrates that if there is an increase in the value of NIM by 1 unit it will cause an increase in the amount of the value of credit distribution of 0.495 units, assuming the other independent variables are considered constant.

5. Discussion

Based on the results of multiple regression analysis for the CAR variable the value of t arithmetic is 1.944, the regression coefficient is 0.230, and the probability value is 0.041. Because the level of significance is below 0.05, the testing of hypothesis 1 which states that CAR has a positive effect on lending has positive and significant results. The support of hypothesis 1 indicates that the higher the funds provided by banks for business development needs and to accommodate the risk of loss of funds caused by bank operations, the higher the credit distribution. With capital adequacy, it can provide space for movement internally and externally, because with the capital adequacy the banks can meet the safe regulatory requirements (Satria and Subegti, 2010). The results of this study support the research conducted by Budiawan (2008), Satria and Subegti (2010) and Yuliana (2014).

Testing of hypothesis 2 which states that the LDR variable has a positive effect is obtained by the t-test results for the LDR variable of 1.674, the regression coefficient of 0.136, and the probability value of 0.150. With a probability greater than 0.05, this result shows that even though the LDR has a positive effect, it does not significantly

affect credit distribution. By not having a significant effect on lending in the observation period, it shows that the higher the LDR, the lower the liquidity capacity of the bank concerned. This is because the amount of funds needed to finance credit is getting bigger (Dendawijaya, 2005). Thus the results of testing hypothesis 2 are different from the results of research conducted by Restiyana (2011), Roring (2013), Febrianto and Muid (2013), Yuliana (2014) and Adnan et al. (2016).

The test results of multiple regression analysis between the NPL variables and the credit distribution variable show the value of t count of -4,187, the regression coefficient of -0,831, and the probability value of 0,00. With a probability value smaller than 0.01, it means that the NPL variable has a negative and significant effect on credit distribution. So that hypothesis 3 which states that the NPL variable has a negative effect on the variable credit distribution is significantly supported. The support of hypothesis 3 shows that in the observation period where the increasing number of non-performing loans made banks unable to increase credit distribution if third party funds could not be obtained optimally so that banks were worried that they could disrupt bank liquidity. Therefore, the greater the amount of non-performing loans as reflected in the NPL value, the smaller the credit that banks can channel to the public given the credit risk that arises. The results of testing this hypothesis are in accordance with the research conducted by Mukhlis (2011), Murdiyanto (2012), Primary (2013), Sari (2013), and Yoga and Yuliarmi (2013).

Hypothesis 4 which states that the NIM variable has a positive effect on lending after multiple regression testing is obtained. The results of testing are t count value of 3.503, the regression coefficient is 0.495, and the probability value is 0.001. The test results show that hypothesis 4 is supported positively significant because the probability value is smaller than 0.01. Based on the results of the hypothesis testing, it shows that NIM has an influence and is positive because the placement of productive assets in the form of credit is large enough to finance the performance of banks and there is an emphasis on the cost of funds to obtain bank net income. Net interest income is obtained from the bank's operating income because the interest is derived from its main activities in lending. The results of this study are consistent with the results of research conducted by Prayudi (2011), Amriani (2014) and Arianti et al. (2016), but in contrast to previous studies such as Restiyana (2011) and Sari (2011) obtained by NIM did not significantly affect credit distribution.

6. Conclusion

This study aims to reexamine the influence of bank internal variables that can be measured from the bank's soundness level such as capital aspects or capital adequacy ratio (CAR), liquidity aspects or loan to deposit (LDR), credit collectability aspects or non-performing loans (NPL) and the aspect of net interest margin (NIM) on the dependent variable, namely bank lending. Based on data analysis and hypothesis testing conclusions were obtained in the form of CAR, NIM and NPL variables supported significantly. CAR and NIM variables positively have a significant effect on bank lending and support the hypothesis proposed in this study. For the NPL variable, the negative results significantly affect the lending to commercial banks in the observation period. While the LDR variable does not significantly affect lending, so the hypothesis proposed in this study is not supported or rejected.

7. Limitation

This study uses a research period from 2014-2017. This study was only able to describe the conditions for lending to banks listed on the Indonesia Stock Exchange during this period. Factors that influence lending are also influenced by the conditions of the study period used. In other words, this study only uses independent variables derived from internal banking factors only.

8. Suggestion

Suggestions that researchers can give related to this research and can be taken into consideration for further research are as follows:

1. Because this study only analyzes the factors that affect credit distribution from the internal side of the banking sector, it is expected that other studies can analyze the factors that affect credit distribution from the external side of the banking sector such as the monetary crisis, rising world oil prices, riots, natural disasters such as earthquakes, floods, fires and other events so that the analysis produced can be more comprehensive and balanced.

2. Given the limitations of the research conducted by the authors in this study, other researchers are advised to expand the research sample where the sample is not

limited to commercial banks. In addition, it is expected that future research can use longer or longer observation times.

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