ANALYSIS OF CAPITAL ADEQUACY RATIO EFFECT, NON PERFORMING LOAN, OPERATIONAL LOAD OPERATIONAL INCOME AND LOAN TO DEPOSIT RATIO OF PROFIT CHANGES WITH CREDIT DISTRIBUTION AS AN INTERVENING VARIABLE
(Study of Banking Companies Listed on the Indonesia Stock Exchange Period 2007-2017)

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Abstract: The purpose of this study is to analyze the effect of Capital Aduquacy Ratio (CAR), Non Performing Loans (NPL), Operating Costs on Operating Income (OCOI) and Loan Deposit Ratio (LDR) on Changes in Profit and its influence mediated by Credit Distribution. The object of this research is banking companies listed on the Indonesia Stock Exchange (IDX) for the 2007-2017 period. The sampling technique uses a purposive sampling method with a sample of 14 selected banks in order to obtain 154 observational data. Data analysis method is secondary data using Smart PLS (Partial Least Square). The results indicated that CAR and LDR did not have a significant positive effect on earnings changes. NPL has a negative effect, but not significantly to changes in earnings. The OCOI variable has a significant negative effect on changes in earnings. OCOI and LDR ratios have a significant effect on changes in earnings through lending. The CAR and NPL variables have no significant effect on changes in earnings through lending.

1. INTRODUCTION

Changes in a company's earnings could have increased for this year but it could also decline for the following year. When the company experiences an increase in profits or earnings growth, then when the change in earnings will show a positive direction. Credit is one of the main income of banks, because credit provides a sizable profit compared to other bank businesses such as the cost of saving fund storage services, interbank delivery service fees and so on. The role of banks as financial institutions is never free from credit problems. Based on an online article in the Latest Economic and Business News (Setyowati, 2016), the high risk of problem loans makes banks more selective in channeling credit. This risk was also responded by banks that were frugal in lowering lending rates. The Financial Services Authority (FSA) recorded credit growth as of the end of July 2016 of 7.74% or slowed compared to the previous month which reached 8.89%. In fact, 2016 bank credit growth is targeted at 11% - 12%, and even then it is already lower than the original projection of 14%. Despite slowing credit growth, the ratio of non-performing loans (NPLs) in the bank's FSA notes rose from 3.05% to 3.18% in July 2016 and with a fairly strong bank capital, OJK was able to anticipate the potential risk of rising NPLs. The Capital Adequacy Ratio (CAR) was 23.19% as of July. In terms of banking liquidity, the FSA assesses that conditions are still good. The

space for credit expansion is monitored to be quite wide if you see the loan to deposit ratio (LDR) down from 91.19% in June to 90.18% in July 2016.

The financial ratios that can affect changes in earnings and lending include Capital Adequacy Ratio (CAR), Non Performing Loans (NPL), Operating Costs to Operating Income (OCOI) and Loan to Deposit Ratio (LDR). Aini (2013) research results; Sari (2013); Amelia (2017) states that the CAR variable has a positive influence on earnings changes. In contrast to Setiawan and Hanryono (2016) who are not in line with this theory states the CAR variable partially has no effect on the profit growth of foreign exchange private banks listed on the Indonesia Stock Exchange in the period 2009-2013. Dewiyani Research (2014); Pratiwi and Hindasah (2014) also stated that the Capital Adequacy Ratio (CAR) had a negative and not significant effect on lending.

On the NPL variable, Rahman (2009) and Pahlevie (2009) stated that NPL has a negative and significant effect on changes in earnings. Dewiyani Research Results (2014); Hasyim (2014); Arianti et al. (2016) and Amelia (2017) also show that NPLs have a negative and significant effect on lending. However, it is not with the results of Aini's (2013) research that NPL has no significant positive effect on earnings changes. In line with the research of Martin et al. (2014) that NPL has a positive and not significant effect on lending.

In the OCOI ratio, the results of Aini's research (2013); Dewinta (2009) and Rahman (2009) stated that changes in OCOI had a negative and significant effect on changes in earnings. Yulhasnita (2013) states that OCOI has a negative and significant effect on lending. While research Triono (2007) and Pahlevie (2009) show that partially the OCOI variable does not significantly influence the variable changes in earnings. Likewise with the research of Martin et al., (2014) the effect of OCOI on Credit Distribution shows that the results have no significant effect. Research by Pahlevie (2009) and Aryanti (2010) states that LDR has a significant positive effect on changes in earnings. The LDR ratio also influences lending as evidenced by the results of research by Amelia (2017) and Martin et al. (2014) which states that LDR has a significant positive effect on lending. Triono's research (2007) shows that partially the LDR variable does not significantly influence the earnings change variable, similar to the research of Hasibuan (2013) and Yulhasnita (2013) that the LDR has a negative and not significant effect on lending.

The inconsistencies that occur in the background described above, then the problem formulation in this study is to find out how the influence of financial ratios that are proxied by CAR, NPL, OCOI and LDR as independent variables on the Profit Change mediated by Credit Distribution. Another factor that made researchers interested in conducting this research was to find out and analyze the effect of CAR, OCOI, NPL, and LDR on Changes in Profit and to know and analyze the effect of CAR, OCOI, NPL, and LDR on Changes in Profit mediated by Credit Distribution in Banks Registered on the Indonesia Stock Exchange Period 2007-2017.

2. LITERATURE REVIEW

2.1 Signaling Theory

According to Brigham and Houston (2009) signal is an action taken by management that gives instructions to investors (investors) about how management views the company's expectations. Earnings announcements are an example of delivering information through signaling. Hakim (2013) states that earnings announcements contain information that is used by investors to make decisions on investment activities as well as project or predict prospects/expectations of the company in the future. An increase or decrease in profit is called growth or change in earnings. If management announces increased profits, investors will receive information that the company's financial condition is relatively good in the future, and vice versa. Changes in the increase or decrease will have an impact on decisions regarding company financial policy.

2.2 Change in Profit

A change in profit is an increase or decrease in profit per year. Harahap (2016) explains that changes in earnings are relative changes in profits obtained based on the difference between earnings in a certain period with the previous period and then divided by the earnings of the previous period. The formula for calculating changes in earnings is:

$$\Delta Y_{i,n} = \frac{Y_n - Y_{n-1}}{Y_{n-1}}$$

ΔYi, n = change in earnings in bank i year n
Yn = bank profit in year n
Yn-1 = bank profit before the year n

2.3 Credit Distribution

According to Law No. 10 of 1998, credit is the provision of money or bills which can be equaled, based on a loan agreement between the bank and another party that requires the borrower to repay the debt after a certain period of time with interest. Credit distribution is an activity that dominates the bank's business in its function as an intermediary institution.

2.4 Financial Ratios

Financial ratios are numbers obtained from the results of comparisons between one financial statement post and another post that has a relevant and significant relationship. Comparisons can be made between one item with another item in one financial statement or between items that exist between financial statements (Hery, 2015). Munawir (2012) also states that an alternative that can be used to determine changes in earnings in a company that is commonly used is to do financial ratio analysis that can help profit growth in the future.

2.5 Capital Adequacy Ratio (CAR)

Capital Adequacy Ratio is capital adequacy, showing the ability of banks to maintain sufficient capital and the ability of bank management to identify, measure, supervise, and control the risks that arise that can affect the amount of bank capital. According to Gizaw et al., (2015) capital adequacy refers to the amount of equity and other reserves held by banks against risk assets. The purpose of these reserves is to protect depositors from unexpected losses. Sehinnga, if the bank capital (CAR)

is high, it will increasingly benefit the bank.

2.6 Non Performing Loans (NPL)

Kirui (2014) states that Non Performing Loans are also called Non Performing Assets (NPAs) are credit facilities in connection with interest and principal amounts that have passed due to a certain period of time. Ijaz et al., (2012) also defines NPL as bad credit, where the debtor does not pay the amount of money borrowed for at least 90 days. So that the higher the bank's NPL ratio, will cause a decrease in the amount of lending (Dewiyani, 2014). This also resulted in reduced bank profits so that changes in profits declined.

2.7 Operating Costs on Operating Income (OCOI)

In accordance with Bank Indonesia Circular Number: 13/24/DPNP dated October 25, 2011 in assessing the efficiency or costs of this business, Operational Expenses/Costs are expenses related to efforts to obtain operational income or direct costs in the form of profit sharing plus all cost incurred. Operating Income is income derived from the bank's main operations including profit sharing/mark-up of financing and other income. Operational income data used are operational income data after profit sharing distribution.

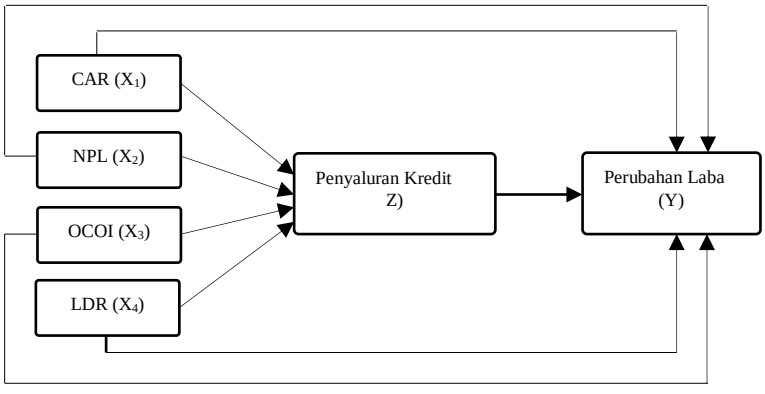
2.8 Loan to Deposit Ratio (LDR)

Loan to Deposit Ratio is the ratio used to measure the composition of the amount of credit given compared to the amount of public funds and own capital used (Kasmir, 2008). The higher OCOI ratio means that the lower liquidity capability of the bank concerned. Uremadu (2012), Nwaru et al., (2011) and Amidu (2006) state that the more liquid banks cause the volume of bank credit to increase.

2.9 Conceptual Framework and Hypothesis

Conceptual Framework

The conceptual framework of this study uses a scientific approach and shows the relationship between variables in the analysis process. The conceptual framework in this study analyzes the effect of several financial ratios that are thought to affect earnings changes through lending, while the conceptual framework in this study is:



Hypothesis

Based on the theoretical and conceptual framework, the hypotheses of this study are as follows:

H1 = `CAR has a positive effect on changes in earnings
H2 = NPL has a negative effect on Changes in Profit
H3 = OCOI has a negative effect on changes in earnings
H4 = LDR has a positive effect on changes in earnings
H5 = CAR has a positive effect on changes in earnings through lending
H6 = NPL has a negative effect on Changes in Profit through Credit Distribution
H7 = OCOI has a negative effect on Changes in Profit through Credit Distribution
H8 = LDR has a positive effect on changes in earnings through lending

3. RESEARCH METHODS

Types of research

The type of research to be conducted is causal associative research. This research was conducted to determine the effect of CAR, OCOI, NPL and LDR on Changes in Profit with Credit Distribution as an intervening variable.

Population and Sample

The population in this study is a banking company listed on the Indonesia Stock Exchange in the period 2007 - 2017. The sampling technique is using purposive sampling. Based on the results of the sample selection criteria, of the 39 banks listed on the Indonesia Stock Exchange, only 14 banks were selected as samples in this study with 11 years of observation, so the total number of observation samples was 154.

Data analysis method

Data analysis is performed using quantitative analysis methods, namely by collecting, processing, and interpreting the data obtained so that it gives correct and complete information for solving the problem at hand. This study uses the SmartPLS (Partial Least Square) version 3.0 method to test the hypotheses in this study.

4. RESULTS AND DISCUSSIONS

4.1 Descriptive Statistics

The descriptive statistical results of each variable can be explained that the lowest CAR value is 11.86% and the maximum value is 24.95%. The average banking CAR value of 17.3361 indicates that the bank's capital ratio has been distributed "well". In the NPL variable the minimum value is 0.10%, the maximum value is 4.14%, the average value is 1.3254, this indicates that the average ratio of non-performing banks is "good", because it is still within reasonable limits> 5% according Bank Indonesia regulations.

The OCOI variable has a minimum value of 61.50 and a maximum value of 97.69%. Then, the average value of 82.2950, this value describes that banks still use a lot of operational expenses rather than generate operating income. In the LDR variable, the minimum value is 52.02% and the maximum value is 97.55%. The average value of 76.6144 shows that the LDR ratio of the distributed banking is quite "good".

Credit distribution has a minimum value of 6.34%, while a maximum value of 13.51%. An average value of 10.6886 means that the level of bank lending is already well distributed. While the variable Change in earnings has a minimum

value of -0.94%, while a maximum value of 2.31%. The average value of 0.2143 is smaller than the standard deviation which indicates that the data is poorly distributed due to large data deviations.

4.2 R-Square Test Value

Based on the results of the R-Square test it can be seen that the R-Square value for the earnings change variable is 0.089. This value means that simultaneous changes in earnings are explained by all independent variables, namely CAR, NPL, OCOI and LDR by 8.9%, the remaining 91.1% is influenced by other factors. Meanwhile, the R-Square value for the credit distribution variable is 0.532. This means that 53.2% of the Credit Distribution variable is explained by CAR, NPL, OCOI and LDR. While the remaining 46.8% is explained by variables outside the model in this study.

4.3 Hypothesis Test

In the results of hypothesis testing it can be concluded that:

a. The OCOI variable has a significant effect on earnings changes, where the t-statistic value is 2.137> t-table 1.97 and the P-Values value is 0.033 <0.05. Then, for the original sample value of -0.269 which means this test has a negative effect. So that the third hypothesis is accepted, meanwhile the CAR, NPL and LDR variables do not have a significant effect on earnings changes.
b. The NPL variable has a significant effect on lending, this is indicated by the t-statistic value of 2.190> t-table 1.97 and the P-Values value of 0.029 <0.05. For the original sample value of 0.170 it means that this test has a positive effect.
c. In the OCOI variable there is a significant influence on lending, where the t-statistic value is 10,013> t-table 1.97 and the P-Values value is 0,000 <0.05. Then, for the original sample of -0.693 which means that this test has a negative effect.
d. Likewise with the LDR variable significantly influence Credit Distribution, where the original sample value of 0.436, which means this test has a positive effect. The t-statistic value is 9.238> t-table 1.97 and the P-Values value is 0.000 <0.05, which means that this test is significant. While the CAR variable does not have a significant effect on lending.
e. Credit Distribution has a significant effect on Earnings Changes, where the original sample value of the Credit Distribution construct is negative by -0,327, meaning that credit distribution does not have a positive influence on earnings changes. Then, for the t-statistic value of 2.364> t-table 1.97 and P-Values 0.018 <0.05, both of them show a significant value.

4.4 Intervening Variable Test

Based on the results of the intervening test, it can be explained that:

1. The CAR variable does not have a significant effect on earnings changes through lending, it can be seen from the t-statistic value of 0.717 smaller than the t-table of 1.97 and the P-Values of 0.474 is greater than 0.05. Thus indicating that the CAR has a positive effect, but not significantly to changes in earnings mediated by lending and concluded the fifth hypothesis was rejected.

2. The NPL variable does not have a significant effect on earnings changes through lending, it can be seen from the t-statistic value of 1.432 smaller than t-table 1.97 and P-Values of 0.153 greater than 0.05. Thus indicating that the NPL has a negative influence, but not significantly to changes in earnings through lending and concluded the sixth hypothesis was rejected.
3. The OCOI variable has a significant effect on changes in earnings through lending, this is evidenced by the magnitude of the t-statistic value that is 2.268 greater than the t-table 1.97 and the P-Values 0.024 smaller than 0.05. Thus, it indicates that the OCOI does not have a negative influence, but it is significant to changes in earnings through lending and it is concluded that the seventh hypothesis is accepted.
4. The LDR variable has a significant effect on earnings changes through lending, where the t-statistic value of 2.264 is greater than t-table 1.97 and the P-Values of 0.024 is smaller than 0.05. So that indicates that the LDR does not have a positive influence, but significant to changes in profit through lending and concluded the eighth hypothesis is accepted.

4.5 The Effect of Capital Adequacy Ratio (CAR) on Changes in Earnings

The results of this study stated that CAR had no significant positive effect on earnings changes so the first hypothesis was rejected. Although the capital adequacy ratio (CAR) of each bank is in accordance with BI regulations, where the average statistical value of CAR is 17.3361. However, the amount of bank capital is allegedly not used effectively for its operations in generating profits, banks rely more on credit as a source of income so that profits generated by banks do not experience significant changes. The results of this test support Setiawan and Hanryono's research (2016) which states that the Capital Adequacy Ratio (CAR) variable has no effect on the profit growth of foreign exchange private banks listed on the Indonesia Stock Exchange in the 2009-2013 period. However, it does not support the results of research by Bhatia et al., (2012); Agbeja et al., (2015); Aini (2013) and Triono (2007) which show that CAR has a positive and significant effect on earnings changes.

4.6 The Effect of Capital Adequacy Ratio (CAR) on Credit Distribution

Test results show that CAR does not have a significant positive effect on lending. The negative effect indicates that there is an allegation that the increase in CAR in banks is not followed by an increase in lending. This indicates that bank capital is not used for lending. When bank capital decreases, this will not inhibit banks in lending because banks can still extend credit to customers using other funding sources received by banks such as third party funds obtained by banks, where the funds received can be used to channel loans to customers . The results of this study are in line with research by Dewiyani (2014) and Pratiwi and Hindasah (2014) which states that the Capital Adequacy Ratio has a negative and not significant effect on lending. However, it is not in line with Sari (2013) and Amelia (2017) research which states that CAR has a significant positive effect on lending.

4.7 The Effect of Non Performing Loans (NPL) on Changes in Profit

The ratio of non-performing loans or Non-Performing Loans (NPLs) has a negative effect, but not significantly to changes in earnings. The insignificant negative effect of this ratio is due to the greater problem loans that occur at a bank,

resulting in decreased bank income. With the increase in NPLs, as a result banks must provide substantial write-off reserves, so that the ability to give credit will be very limited and if not collectible it will result in losses because credit is the main source of bank revenue and the results of these tests are the same as the results of Brock and Rojaz's research- Suarez (2000) who showed NPLs in banks in Argentina and Peru had a negative effect on earnings. However, the study of Brock and Rojaz-Suarez (2000) shows that NPL has a positive effect on earnings at banks in Columbia. In line with research by Pahlevie (2009), it is stated that Non-Performing Loans (NPL) have a negative and significant effect on earnings changes.

4.8 The Effect of Non Performing Loans (NPLs) on Credit Distribution

The results of the statistical test found that NPL had a significant positive effect on changes in earnings. This can be explained that there are allegations that even though bad loans (NPLs) in banks are high, banks still channel loans to third parties. A positive NPL indicates no caution in offering credit by banks. Because there is a suspicion that even though bad loans are high, banks have the funds to channel them back and the bank is able to overcome the high risk of uncollectible debt. This is contrary to the results of Amelia's (2017) study which states that NPLs have a significant negative effect on lending.

4.9 The Effect of Operating Costs on Operating Income (OCOI) on Changes in Profit

The test results found in this study are OCOI has a significant negative effect on changes in earnings so that the third hypothesis is accepted. This means that the level of efficiency of the bank in carrying out its operations affects the level of operating income of the bank. Thus, the lower the OCOI ratio, can increase bank operating income which in turn will lead to greater Profit Change, because the profits generated experience a significant change. The results of this test are in line with the results of the study of Bhatia et al., (2012) which showed that OCOI had a negative and significant effect on earnings of Private Banks in India. However, it is different from the research of Triono (2007) and Pahlevie (2009) which shows that the OCOI variable does not significantly influence the variable of earnings changes. Likewise with the research of Brock and Rojaz-Suarez (2000) where LDR in the countries of Columbia, Chilli and Peru did not show any significant effect.

4.10 The Effect of Operating Costs on Operating Income (OCOI) on Credit Distribution

Based on the results of these tests it is evident that the OCOI has a significant negative effect on lending. A negative result shows that if the OCOI increases, lending will decrease. This is because the bank's income in disbursing loans is greater than the costs incurred, so the existence of OCOI is considered unable to significantly increase bank profits. This research is supported by the results of research by Yulhasnita (2013) and Arianti et al., (2016) which shows OCOI has a negative and significant effect on lending.

4.11 The Effect of Loan to Deposit Ratio (LDR) on Changes in Profit

The statistical test results obtained that the LDR has no significant positive effect on changes in earnings. This is due to the fact that the amount of credit extended to creditors is still small, due to concerns from the bank if the credit given becomes problematic. This statement is proven by the number of low bank LDR

ratios below 80% (listed in appendix 3). Such conditions indicate that the higher LDR is not followed by a higher Change in Profit, meaning that the bank does not entirely place third party funds in credit. The reason is that only a small portion of third party funds is placed on credit, so it does not have a significant impact on increasing changes in earnings. This study is supported by the results of the research of Brock and Rojaz Suarez (2000) stating that LDR in banks in Argentina did not show a significant effect. Savitri's research (2011) also shows that the Foreign Exchange and Non-Foreign Exchange Loan to Deposit Ratio (LDR) variables in Indonesia have not been proven to have a positive and significant effect on earnings changes. While Aryanti's (2010) research contradicts the results of this study, in which the study states that LDR has a significant positive effect on earnings change variables.

4.12 The Effect of Loan to Deposit Ratio (LDR) on Credit Distribution

In this test it was found that the Loan to Deposit Ratio (LDR) has a significant and positive effect on lending. Positive results indicate that the higher the LDR will increase credit distribution. This shows that total loans exceeded the funds received, because the funds received were small. The higher the LDR, the bank's profit increases with the assumption that the bank is able to channel credit effectively so that idle funds become productive so that it increases lending. The results of this study are in accordance with the research of Martin et al. (2014), Amelia (2017) and Febrianto (2013) which states that LDR has a significant positive effect on lending.

4.13 Effect of Capital Adequacy Ratio (CAR) on Changes in Profit through Credit Distribution

Based on the results of statistical tests, the results are obtained that Credit Distribution is not able to affect the relationship of capital adequacy (CAR) to changes in earnings. The cause of CAR does not have a significant effect through lending to changes in earnings, because the high CAR value reflects the stable amount of capital and low risk that is owned by banks and allows banks to channel more loans. However, in this case it did not trigger a rate of profit growth so the statement that the greater the ratio of capital and credit given to party funds received does not prove the increasing changes in profits in banks. This study does not support the results of the research of Arullia (2017) and Syahputra (2014).

4.14 The Effect of Non Performing Loans (NPL) on Changes in Profit through Credit Distribution

The test results show that NPL has a negative effect, but not significantly to changes in earnings through lending. This insignificant result shows that for banks, high non-performing loans have not been proven to affect the decline in bank profits. Because lending is carried out with quite strict considerations, so credit lending is not so much and it is very possible that credit repayment rates will be better. Thus, this study is not in line with Arullia's (2017) research which states that NPL has a negative and significant effect mediated by the volume of lending to the profits of banking companies.

4.15 Effect of Operating Expenses and Operating Income (OCOI) on Changes in Profit through Credit Distribution

Hypothesis testing results state Operational Costs and Operating Income (OCOI) have a significant and positive effect on Changes in Profit through mediation in Credit Distribution. Positive results indicate that if OCOI increases, lending will also increase. This is because fund collection, especially in the community, requires costs other than interest costs, namely operating costs so that the existence of OCOI is considered capable of increasing bank profits, assuming there are many needs to carry out bank activities in lending it requires a lot of operational costs so as to obtain operating income obtained from the bank's activities, so that credit distribution increases, but operational costs become inefficient to get placement of funds in the form of credit and other operating income. This result is in line with the research results of Syahputra et al. (2014) which states that the OCOI variable by involving intervening variables in the form of credit growth significantly influences profit growth.

4.16 Effect of Loan to Deposit Ratio (LDR) on Changes in Profit through Credit Distribution

From the test results it was found that the LDR does not have a positive influence, but it is significant to changes in earnings through the mediation of Credit Distribution. In other words, lending is able to mediate the LDR against changes in earnings. The reason the LDR did not have a positive effect was due to allegations that the increase (high) change in earnings was not supported by the amount of bank loans extended to third party funds. Because there is an imbalance made by the bank between meeting the desires of depositors to withdraw their money with the money that has been used by the bank for lending. This can be seen from the large number of bank LDR ratios that are below the Bank Indonesia standard, which is 90% - 110% (can be seen in the appendix).

5. CONCLUSSIONS AND SUGGESTIONS

5.1 Conclussions

Based on the results of the analysis and discussion that has been carried out using 154 samples of banking companies listed on the Indonesia Stock Exchange, it can be concluded as follows:

1. Capital Adequacy Ratio (CAR) has no significant positive effect on Changes in Profit on Banks listed on the Indonesia Stock Exchange.
2. Non Performing Loans (NPL) have a negative effect, but not significantly to changes in earnings of banks listed on the Indonesia Stock Exchange.
3. Operating Costs on Operating Income (OCOI) have a significant negative effect on Changes in Profit on Banks listed on the Indonesia Stock Exchange.
4. Loan to Deposit Ratio (LDR) has a positive effect, but not significantly to changes in earnings of banks listed on the Indonesia Stock Exchange.
5. Capital Adequacy Ratio (CAR) does not have a significant positive effect on changes in earnings through lending to banks listed on the Indonesia Stock Exchange.
6. Non-Performing Loans (NPLs) have a negative effect, but not significantly to changes in earnings through lending to banks listed on the Indonesia Stock

Exchange.

7. Operating Costs on Operating Income (OCOI) do not have a negative effect, but are significant to Changes in Profit through Credit Distribution to Banks that are listed on the Indonesia Stock Exchange.
8. Loan to Deposit Ratio (LDR) does not have a positive but significant effect on Changes in Profit through Credit Distribution to Banks listed on the Indonesia Stock Exchange.

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