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# THE EFFECT OF INTERNAL FACTOR TOWARD BANKING CREDIT DISTRIBUTION

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Abstract: The country's economy is supported by banking institutions. This is because the benefits of credit are greater compared to other bank businesses such as savings fund deposit services fees, interbank delivery service fees and so on. Internal factors that affect lending include CAR, ROA, NPL, LDR and BOPO. This research was conducted with the aim of simultaneously testing CAR, ROA, NPL, LDR and BOPO on bank credit distribution. The research sample is the bank with the largest number of assets in Indonesia. Data were obtained from the financial statements of the Persero's commercial banks from 2013 to 2017, using the panel data regression data analysis method. The results of hypothesis testing on CAR have a positive influence on lending, ROA also has a positive effect on lending, NPL has a negative effect, LDR has a positive effect, BOPO has a negative effect, whereas if tested simultaneously, CAR, LDR, NPL, LDR and BOPO has a positive effect on lending. With regard to the above conclusions, bank management should be able to take into account the trend of financial ratios for several years, before determining the lending policy

KeyWords: EFFECT, INTERNAL FACTOR, BANKING CREDIT, DISTRIBUTION

## 1. Introduction

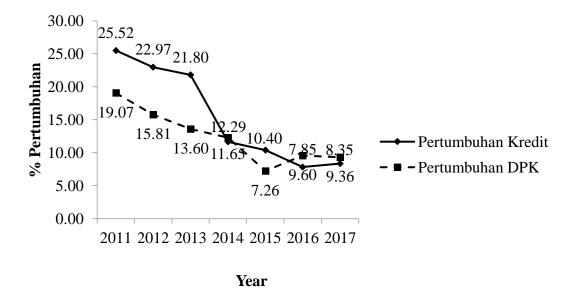
Bank is an institution that mediates between investors (fund suppliers) and parties using funds (fund users), so that a country's economic activities can run smoothly. Banking institutions are important institutions that influence the micro and macro economy, which have 80% market share of the entire financial system in Indonesia (Fahmi et al., 2016). Credit is one of the main income

of a bank. It because the benefits of credit are greater compared to other bank businesses such as savings fund deposit services fees, interbank delivery service fees and so on. The growth of lending from banks, apart from having an impact on the level of bank profitability on the other hand, can also encourage the growth of the real sector that getscredit from banks (Pratiwi & Hindasah, 2014).

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**Chart 1.** Growth of Credit and Third Party Funds for All Commercial Banks (Otoritas Jasa Keuangan, 2013); (Otoritas Jasa Perbankan, 2014); (Otoritas Jasa Perbankan, 2018)

If you look at the chart above, the overall credit growth of commercial banks has decreased throughout 2011 to 2016. This decline was influenced by the unstable financial crisis that hit America and the European region, which also affected the decline in commodity exports from other countries, including Indonesia. . Since America and Europe constitute the largest market share for Indonesian commodities, this ultimately affects all sectors which ultimately reduces the purchasing power of the Indonesian people. The downturn in the domestic economy has caused business actors to postpone their expansion of their business, which has resulted in lower demand for credit from banks. If we look at it from a banking point of view, unfavorable situation an was circumvented by the prudential principle of banks in disbursing loans. In the midst of an economic downturn, there was the only increase in credit growth since 2011, namely in 2017.

Credit growth at that time experienced an increase, even though it only reached 8.3%. This increase was driven by consumption credit (KK) and working capital credit (KMK), which was driven by demand from corporations and individuals. The growth of third party funds (DPK) of all commercial banks also decreased from 2011 to 2015 due to a decrease in interest rates, then in 2016 it increased to 9.6% and in 2017 it decreased again to 9.4%. This was due to the end of the government program, namely the tax amnesty policy which began on June 28, 2016 and ended in March 2017 which resulted in the cessation of the flow of repatriated funds entering the banking system in the country.

Large bank assets allow banks to channel larger loans as well. State-owned banks and national private commercial banks (BUSN) are relatively large banks. If you look at the data on credit growth in the two categories of banks, credit growth and

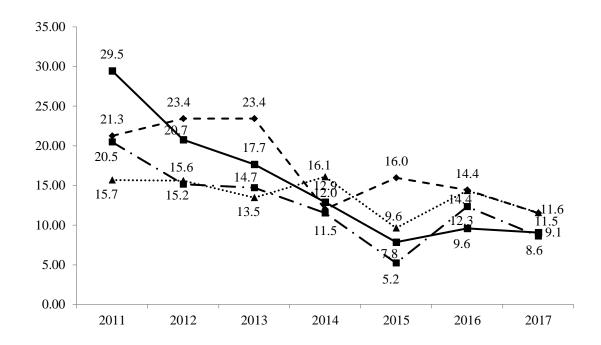
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third party funds (TPF) tend to fluctuate.

This can be seen from grafic 2 as follow



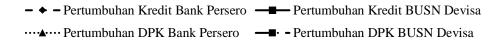


Chart 2. Chart of credit and third party funds (Otoritas Jasa Keuangan, 2013); (Otoritas Jasa Perbankan, 2014); (Otoritas Jasa Perbankan, 2018)

Chart 2 shows that in state-owned banks, credit growth has fluctuated. Credit growth experienced the same increase in 2012 and 2013, then decreased quite sharply in 2014, namely from 23.4% to 12% due to the sluggish global and domestic economy. In 2015 it increased again to 16% and then decreased until 2017 to 11.5% due to high loan interest rates. Fluctuation also occurred in the growth of third party

funds (DPK). In 2011 to 2013 there was a slight decline, starting from 15.7% in 2011, and 13.5% in 2013. In 2014 it increased to 16.1%, and decreased to 9.6% in 2015. Furthermore, it increased in 2016 to 14.4% and decreased to 9.1 in 2017.

In the Foreign Exchange BUSN, credit growth from 2011 of 29.5% continued to decline until 2015 by 7.9%, and then increased in 2016 by 12.3% and in 2017

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decreased to 11.5%. The growth of foreign exchange bank deposits from 20.5%, continued to decline until 2015 by 5.2%, and then increased in 2016 by 9.6% and decreased again in 2017 by 8.4%.

Credit growth, which has a downward trend, needs efforts to increase it. This justifies the importance of conducting a study on internal factors that influence bank lending.

Internal factors that influence lending include the Capital Adequacy Ratio (CAR). The effect of CAR on bank lending is a positive influence. Previous research has shown that CAR has a positive effect on bank lending (Rai & Purnawati, 2017); (Arianti et al., 2016); (Nugraheni & Meiranto, 2013). Several studies have also found that CAR has no effect on lending (Pratiwi & Hindasah, 2014); (Martin et al., 2014); (Febrianto & Muid, 2013).

CAR is a ratio that compares the amount of capital of a bank with risk weighted assets (RWA). A high CAR indicates a healthy bank capital. The minimum capital that must be provided by the bank is 8% of the RWA. The high CAR indicates the amount of capital of a banking institution. In other words, CAR is a ratio that shows a bank's ability to anticipate losses. The higher the capital of a bank, the more credit will be given to the public, which will increase credit distribution (Pratiwi & Hindasah, 2014).

Return On Assets (ROA) also affects lending, where the effect is positive. The results of previous research (Malahayati & Sukmawati, 2015) also prove the positive effect of ROA on lending. As for other previous research (Febrianto & Muid, 2013); (Nugraheni & Meiranto, 2013) shows that ROA does not affect lending. ROA indicates the ability of an institution to obtain

profits from the assets used (Helfert, 2001). A high ROA means that the profit earned is also high, so that its ability to provide credit is increasing (Nugraheni & Meiranto, 2013).

Another internal factor that affects lending is Non-Performing Loans (NPL), which has a negative effect. Previous research has also proven that NPL has a negative effect on lending (Arianti et al., 2016); (Pratiwi & Hindasah, 2014). Previous research also shows that NPL results have no effect on lending (Rai & Purnawati, 2017); (Malahayati & Sukmawati, 2015).

The risk that can occur from providing credit and affecting bank performance is that customers are unable to pay credit smoothly, otherwise known as bad credit or NPL (Febrianto & Muid, 2013). The government through BI sets the NPL standard at 5% (Arianti et al., 2016). High NLP causes banks to provide their capital reserves anticipate this, thereby affecting the erosion of bank capital. A high NPL value indicates poor credit performance in the form of non-performing loans or bad loans. This bad credit performance can result in a decrease in financial performance so that it also has an impact on the decrease in credit that can be distributed to the public (Rai & Purnawati, 2017).

Loan to Deposit (LDR) also affects lending. The results of previous research prove that the LDR has a positive effect on lending (Adnan et al., 2016); (Martin et al., 2014); (Febrianto & Muid, 2013). Other previous studies also show that LDR has no impact on lending (Nugraheni & Meiranto, 2013). LDR is a ratio to assess a bank's ability to repay its obligations to customers for invested funds

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#### 2. Research Method

This study uses a correlational design. The population in this study were all commercial banks in Indonesia. The sample in this study determined 10 banks with the largest assets in Indonesia, and had positive after-tax profits. This is done on the grounds that because the bank has large assets, the volume of lending is also relatively large.

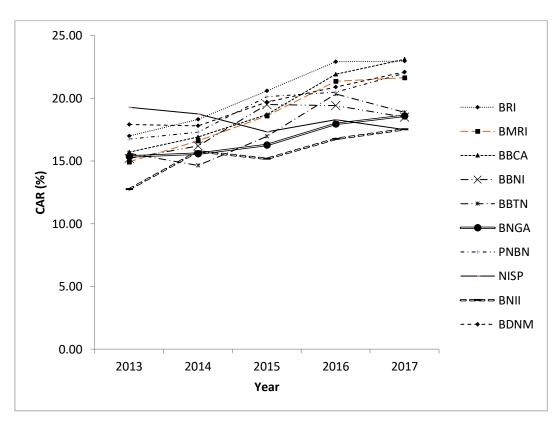
Research data is secondary data, and collected from documentation in the form of written materials. The research data was obtained from the financial statements of state-owned commercial banks in 2013-2017, which were obtained from the Jakarta Stock Exchange and the websites of the banks concerned. The data analysis technique used in this study was panel data regression.

## 3. Results and Discussions

## 3.1. Data Description

## 1. Description of CAR

CAR data obtained from the research results can be described in the following figure:



**Chart 3.** Chart of CAR 2013-2017

Chart 3 shows that the average bank CAR shows an increasing trend from 2013 to 2017. The downward trend in CAR occurred at Bank NISP. Even though there is an increasing trend, at

Bank BNI (BBNI) and Bank BTN (BBTN), there was a decrease in CAR in 2017.

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## 2. Description of ROA data

The ROA data obtained from the research results can be described in the following figure

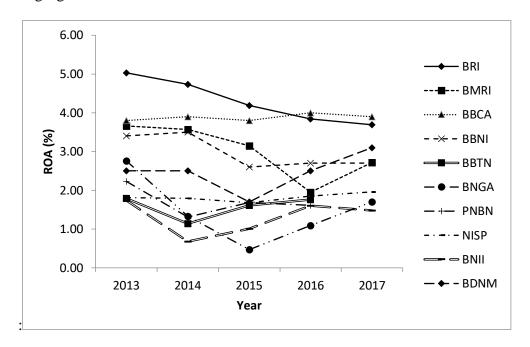
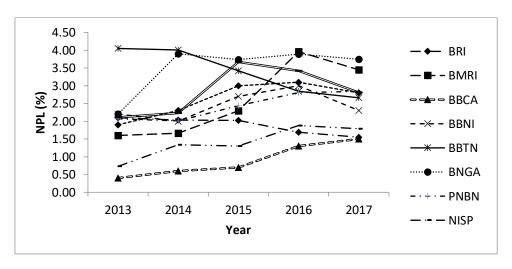


Chart 4. Chart of ROA 2013-2017

If you look at Chart 4, it can be seen that the ROA value tends to fluctuate. At the BRI bank (BBRI), Mandiri bank (BMRI), and BNI bank (BBNI), there is a decreasing trend. As for the other banks, fluctuations were seen, especially in 2014 or 2015.

## 3. Deskripsi Data NPL

The NPL data obtained from the research results can be described in th following figure:



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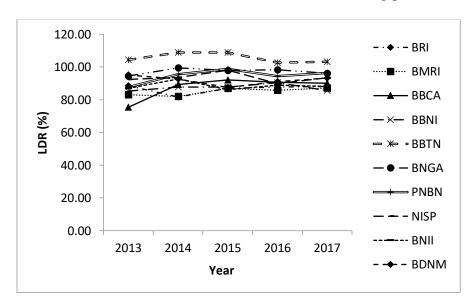
#### Chart 5. Chart of NPL 2013-2017

Chart 5 shows that most banks experienced an increasing trend in NPLs. However, the BRI bank (BBRI)

and the BTN bank (BBTN) NPL showed a downward trend.

## 4. Deskripsi Data LDR

The LDR data obtained from the results of the study can be described in the following picture:



**Chart 6.** Chart of LDR 2013-2017

Chart 6 shows that the LDR value has a constant trend trend. The increase and decrease in LDR value that occurs is not too significant.

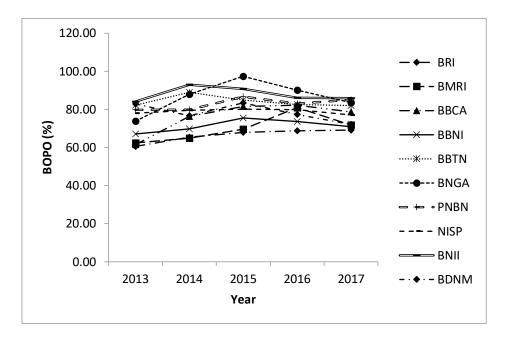
## 5. Deskripsi Data BOPO

The BOPO data obtained from the research results can be described in the following figure:

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**Chart 7.** Chart of BOPO 2013-2017

Chart 7 shows that in general there is a constant trend in all banks. The increase and decrease in BOPO value that occurred in all banks was not too significant. This shows that the bank

is able to manage the level of operational efficiency.

# 6. Deskripsi Data Penyaluran Kredit



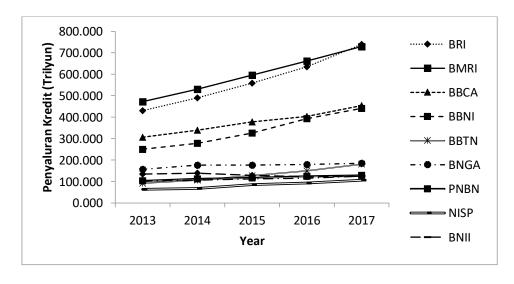


Chart 8. Chart of lending 2013-2017

Chart 8 shows that basically there is a trend of lending that tends to increase, except for CIMB Niaga (BNGA) which tends to be constant, and Bank

Danamon (BDNM) which tends to decline.

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## 3.2. Analysis Data

#### 3.2.1. Panel data estimation result

Panel data estimation model consists of Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). The panel data estimation results for the three estimation models can be summarized in the following table

Tabel 1. Rangkuman Hasil Estimasi Data Panel

Variabel	CEM	FEM	REM
С	19,004	1,927	3,363
CAR	1,063*	0,865***	0,951***
	(1,822)	(4,128)	(4,615)
ROA	0,617*	0,034	0,079
	(1,944)	(0,292)	(0,685)
NPL	0,357**	0,002	0,006
	(2,103)	(0,020)	(0,073)
LDR	-3,033**	-0,218	-0,552
	(-2,312)	(-0,303)	(-0,795)
ВОРО	-0,879	0,423	0,375
	(-0,619)	(0,643)	(0,587)
$\mathbb{R}^2$	0,560	0,975	0,364

- a. Information:
- b. The values in parentheses are the t-count values
- c. \*\*\*: Significant at the 1% (0.01%) significance level
- d. \*\*: Significant at the 5% (0.05%) significance level
- e. \*: Significant at the 10% significance level (0.1%)

Based on table 1 above, it can be interpreted as follows:

a. CAR has an effect on lending in all panel data regression models, both CEM, FEM, and REM. CAR affects lending at a significance level of 10% in the CEM model, and 1% in FEM and REM.

b. ROA affects lending in the CEM model at a significance level of 10% and has no effect the **FEM** and **REM** on models.NPL berpengaruh terhadap penyaluran kredit pada model **CEM** pada taraf signifikansi dan tidak 5%

berpengaruh pada model FEM dan REM.

- f. LDR has an effect on lending in the CEM model at a significance level of 5% and has no effect on the FEM and REM models
- g. BOPO has no effect on lending in all panel data regression models.Based on table 1 above, the Common Effect Model (CEM) will be used to test the hypothesis, with the consideration that this model produces more significant variables for bank lending.

#### Hypothesis test

Furthermore, by referring to table 1, the following hypothesis testing is carried out:

#### 1. First Hypothesis Testing

Table 4 shows that the regression coefficient value for the CAR variable is 1.063 and the t-count is 1.822, and is significant at the 10% significance level. Based on this, it

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is concluded that CAR has a positive and significant effect on lending.

#### 2. Second Hypothesis Testing

Table 4.1 shows that the regression coefficient value for the ROA variable is 0.617, and the t-count is 1.944 and significant at the 10% significance level. Based on this, it is concluded that ROA has a positive and significant effect on lending.

#### 3. Third Hypothesis Testing

Table 4.1 shows that the regression coefficient value for the NPL variable is 0.357, and the t-count is 2.103 and is significant at the 5% significance level. Based on this, it is concluded that NPL has a positive and significant effect on lending.

#### 4. Fourth Hypothesis Testing

Table 4.1 shows that the regression coefficient value for the LDR variable is -3.033, and the t-count is -2.312 and is significant at the 5% significance level. Based on this, it is concluded that the LDR has a negative and significant effect on lending.

## 5. Fifth Hypothesis Testing

Table 4.1 shows that the regression coefficient value for the BOPO variable is -0.879, and the t-count is -0.619 and is not significant. Based on this, it is concluded that BOPO has no effect on lending.

The results showed that CAR had a positive and significant effect on lending. The results of this study support the results of previous studies (Rai & Purnawati, 2017); (Arianti et al., 2016); (Nugra heni & Meiranto, 2013). In addition, there are also previous studies that have shown that CAR does not affect lending (Malahayati & Sukmawati, 2015); (Pratiwi & Hin-

dasah, 2014); (Febrianto & Muid, 2013).

CAR is a ratio that compares the amount of capital of a bank with risk weighted assets (RWA). A high CAR indicates a healthy bank capital. The minimum capital that must be provided by the bank is 8% of the RWA. The high level of capital causes the bank to be able to bear the risks from its operations. This also raises public trust in banks, so they are willing to save their funds, so that it will have an effect on increasing third party funds. Funds from third parties are funds that will be used by banks to provide credit. Based on this, CAR has a positive effect on lending. The higher the CAR value, the greater the credit extended by banks.

If you look at the research results, it can be seen that the CAR value of all banks is above the minimum CAR required by Bank Indonesia. This means that the bank has sufficient capital to anticipate the risks involved in lending. This causes banks to have the courage to extend credit in larger amounts.

The results showed that ROA had a positive and significant effect on lending. The results of this study support the results of previous studies (Putri & 2016); (Malahayati Akmalia, Sukmawati, 2015); (Yuliana, 2014). The results of the study contradict the results of previous studies which show that ROA has no effect on lending (Pratiwi & Hindasah, 2014); (Febrianto & Muid, 2013); (Nugraheni & Meiranto, 2013). ROA shows a bank's ability to get a profit relative to its total assets. The high ROA causes the return on bank assets to also be higher. A high ROA indicates a higher bank's ability to get a profit from the assets used. The high profit rate causes the bank's ability to provide credit to also higher. High

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lending is also expected to increase bank income.

High ROA, which indicates a high level of profit, has implications for increasing public confidence in banks to save their funds in the form of various bank products. This makes it easier for banks to obtain capital, so that it can be channeled back to the public in the form of credit. In addition, a high ROA indicates that the bank is optimal in using its assets to generate profits. The ability of banks to earn better profits has implications for the easier for banks to approve credit applications, so that lending also increases.

The results showed that NPL had a negative effect on lending. The results of this study support the results of previous studies (Arianti et al., 2016); (Putri & Akmalia, 2016); (Pratiwi & Hindasah, 2014). The results of this study contradict the results of research which show that NPL has no effect on lending (Rai & Purnawati, 2017); (Santoso & Dewi, 2017); (Malahayati & Sukmawati, 2015); (Noorani et al., 2014); (Yuliana, 2014); (Febrianto & Muid, 2013); and (Nugraheni & Meiranto, 2013). The results of the study also contradict the results of previous studies which show that NPL has a positive effect on lending (Martin et al., 2014).

NPL is a ratio that shows the ability of bank management to manage nonperforming loans provided by banks. The level of credit risk is unavoidable, however, banks must make sure that the level of credit risk remains reasonable, namely 3% -5% of all credit. The government through BI sets the NPL standard at 5%. A high NPL value will disrupt the flow and circulation of cash from the bank, and disrupt its operations, thereby reducing its ability to distribute loans. This means that high

NPLs will reduce bank lending (Arianti et al., 2016).

If you look at the results of the data description, it is found that the average NPL value during the study period, the lowest was Bank BCA at 0.900% and the highest was Bank CIMB Niaga at 3.496. This value is still within the NPL standard set by Bank Indonesia (BI). The NPL value, which is still below BI standards, indicates that the risk of bad credit faced by banks is still within reasonable limits, so that it is not too risky and disrupts banking operations. This has caused banks to dare to issue larger amounts of credit.

The results showed that the LDR had a negative effect on lending. The results of this study contradict research that shows LDR has a negative but insignificant effect (Yuliana, 2014). The results of this study also contradict previous research which showed that LDR has a positive effect on credit provision (Martin et al., 2014); (Febrianto & Muid, 2013).

Loan to deposit ratio or LDR is used to measure the level of bank liquidity or how far the bank's ability to meet its short-term obligations. A high LDR indicates a bank's increasing ability to meet its short-term obligations. The high LDR is an indicator of low credit risk, so that banks are more willing to channel more loans from the third party funds they receive.

However, the higher the LDR, the lower the interest of bankers in providing loans. Bankers are also becoming more selective. If standards are raised and credit becomes more difficult, it will tend to increase interest rates. Although a high loan to deposit ratio has never been determined by reference, this ratio is a factor that is considered in lending and investment decisions. The loan to deposit ratio increases for all

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banks, and the bigger the bank, the bigger the loan ratio. The high ratio can be partly explained by the ability and willingness of banks to solve their liquidity problems using liability management, or making loans from the money market, and not depending solely on asset adjustments, and partly through bank efforts to obtain higher levels of income. (Darmawi, 2014).

The LDR value for banks that are categorized as healthy is 75% - 85% (Febrina et al., 2016). If you look at the results of the study, it can be seen that almost all of the LDR values are above 85%, and even the State Savings Bank in all study periods the LDR values are above.

#### **Conclusions**

Based on the results of research and discussion, it can be concluded that CAR, ROA, and NPL have a positive and significant effect on lending. LDR has a negative and significant effect on lending. The BOPO has no effect on lending.

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