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## **The Effect of Third-Party Funds, Capital Adequacy Ratio, Casa Ratio, Bi Rate, And Inflation Towards The Distribution of Credit Banking in Indonesia**

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### **Abstract:**

*This research aims to determine the effect of internal and external factors on bank lending. The independent variables analyzed were Third-Party Funds (DPK), Capital Adequacy Ratio (CAR), CASA ratio, BI rates, and inflation. While the dependent variable in this study is bank credit distribution. This research was conducted by taking secondary data through the publication of Bank Indonesia (www.bi.go.id), the Financial Services Authority (www.ojk.go.id), and Bureau Van Dijk (www.orbis.bvdinfo.com). The population in this study are banks listed on the Indonesia Stock Exchange (IDX). Sampling of this study was conducted using the purposive sampling method, which amounted to 15 banks with the largest assets in Indonesia in 2018. The research period used is based on annual banking reports, 2011-2018. This research is a quantitative study using the FEM (Fixed Effect Model) method. The results of this research indicate that variable of Third-Party Funds, Capital Adequacy Ratios, CASA ratio and Inflation is significantly effective towards the distribution of credit banking partially. On the other hand, the variable BI rates is not significantly effective to the distribution of credit banking. Meanwhile, DPK, CAR, CASA, BI rates and inflation simultaneously have a significant effect on the distribution of credit banking.*

**Keywords:** *Distribution of Credit Banking, BI Rates, CAR, CASA, Inflation, Third Party Funds*

### **1. Introduction**

#### **Background**

The section consists of background of the study. The content of manuscript must be contained Introduction, Literature Review, Methodology, Results & Analysis, and Conclusion & Recommendation. Commercial banks are expected to be able to give the largest contribution to the national economy, since more than 95% of Third-

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Party Funds (DPK) national banking is located in the commercial bank. Commercial bank's role is never free from credit issues. In fact, credit administration is the main hustle of commercial banks as financial institutions. The amount of credit that are distributed by the bank will determine the amount of profit the bank will have. If the bank failed to distribute the credit, while the deposit fund collected from the citizens or other sources is really a lot, then it'll cause the bank to face a loss.

In the process of lending out credit, bank has to minimise the level of credit risk by analysing the impact of Third-Party Funds (DPK), Capital Adequacy Ratio (CAR), CASA Ratio and BI Rate, internal factor, along with other external factor according to the principle of Bank Indonesia. It was expected that in the distribution of credit, bank would not face credit risk, and would accomplish their responsibilities in the amount of time that have been decided.

### **Objective**

This research was done to improve the researches that has been done before. With the renewal of the CASA ratio variable, it is expected that this research could give contribution to the banking world, especially to the commercial banks in Indonesia with their distribution of credit to the citizens. The writer is interested to test out the internal and external factors that could effect credit banking in a longer duration of research which is around 8 years time, by using software application that could arrange statistics data, EVIEWS.

Therefore, to get a better picture regarding the things said previously, this research is entitled: "The Effect of Third-Party Funds (DPK), Capital Adequacy Ratio (CAR), CASA Ratio, Inflasi, and BI rate (BI Rate) Towards The Distribution of Credit Banking With The Largest Assets in Indonesia Year 2018, in the 2011-2018 Period of Time" The Effect of Third-Party Funds (DPK), Capital Adequacy Ratio (CAR), CASA Ratio, BI Rate, and Inflation Towards the Distribution of The distribution of credit banking in Indonesia". The purpose of this research is to know the effect of Third-Party Funds (DPK), Capital Adequacy Ratio (CAR), CASA Ratio, Inflasi, dan BI rate (BI Rate) towards the distribution of credit banking with the largest assets in Indonesia year 2018, in the 2011-2018 period of time.

## **2. Theoretical Background**

### **Commercial Banks**

Commercial banks are banks that run business activities by giving service in settlement runs, conventionally or according to the syariah principle. According to the Undang-Undang nomor 10 tahun 1998 pasal 3, the main purpose of Indonesia's banking is to be the collector and also distributor of the public's fund. Undang-Undang nomor 10 tahun 1998 pasal 4 states that Indonesia's banking has a purpose to support the national construction in increasing the distribution, economic growth and national stability towards the enhancement of the public's welfare (Indonesia, 1998 Kasmir 2008).

### **Third-Party Funds (DPK)**

According to the rules of Bank Indonesia nomor 10/PBI/2008, Third-Party Funds (DPK) is the responsibility of the bank to Indonesia's citizen and not all the citizens in the region of Indonesia's republic neither in rupiah or other foreign currency (Kasmir 2008)(Kasmir 2008). Funds that are trusted by the citizens to the bank (DPK) could be in a form of checking accounts, savings, and deposits. DPK, which is the money that customers has deposited, will be the main source for the bank to earn profits, since DPK's banking could reach around more than 90% from the whole fund that is managed by the bank (Indonesia 1998)

### **Capital Adequacy Ratio (CAR)**

Capital Adequacy Ratio (CAR) is the ratio of the capital's sufficiency which represent the banking ability in supplying funds that would be used to deal with the risk of loss possibilities, or the comparison between the total capital with the risk-weighted assets (ATMR). This ratio is important as by maintaining CAR at a safe limit (which is a minimum 8% of CAR), means their able to protect the customers and maintain the stability of the finance system in the bank. The higher the value of CAR, the greater ability of the bank to deal with loss risk possibilities.

$$CAR = \frac{TOTAL\ CAPITAL}{ATMR} \times 100\%$$

### **CASA Ratio**

CASA (*Current Account Savings Account*) is the main low banking funds which is sourced from checking and savings account (Rawani 2014)(Rawani 2014). Banking usually only offers around 2-5% of bank interest in a year for this two savings product. CASA ratio measures the ability of the bank in collecting checking and savings accounts which is a low saving funds to the total of the third-party funds. CASA ratio could be measured by comparing the total checking and savings with the total of the third-party funds (Indonesia 1998).

### **Inflation**

Fahmi defines that inflation is an occasion which represents the situation and condition when good's prices rises and the currency's value weakened (Fahmi, 2015; Maulidizen, 2018) Maulidizen, 2018)(Fahmi, 2015; Maulidizen, 2018). If this thing happens continuously, this could cause a deterioration of the economic condition thoroughly and could shake the political stability of a nation. Inflation is a phenomenon where there's a decline in the unit of calculation's value towards a commodity (Indonesia 2004)(Indonesia 2004). The formula to indicate inflation according to the price index is as follows.

$$\frac{(Present\ IHK - Previous\ IHK)}{Present\ IHK} \times 100\%$$

### **BI Interest Rate (BI Rate)**

BI rate or interest rate of Bank Indonesia is the monetary policy (finance) that is set by BI monthly. The BI rate data in this research is the yearly BI rate data which was

the monthly average data in 1 year. Before the policy of BI rate is set, BI's board of governors holds a board meeting every beginning of the month. BI rate's function is to maintain inflation and bank interest rate, so it'll stay stable (Indonesia 2004).

### **Credit Banking Distribution**

According to Undang-Undang Nomor 10 Tahun 1998, credit banking is the provision of money or invoice that could be compared to that, according to loan agreement between the bank and other parties which requires the debtor to pay back his debt after a certain period of time with an additional interest (Jusuf 2014)(Jusuf 2014). Elements that are contained in credit banking is trust, agreement, deadline of return and also credit administrative costs (conventional) (Indonesia 1998)

## **3. Methodology**

### **Design of Research**

This research uses a quantitative approach. Based on the level of explanation of the position of the variable the research is causal associative, that is, this research seeks a causal relationship (influence) between the independent variable (X) and the dependent variable (Y) (Sugiyono 2017)

### **Population and sample**

The population used in this research is commercial banks in Indonesia which were listed on the Indonesia Stock Exchange in the 2011-2018 period. The author uses a non-probability sampling method with a purposive sampling technique with the following sample selection criteria: (1) Commercial banks in Indonesia with the largest assets recorded at the Bureau Van Dijk orbis bank in 2018, (2) Commercial banks in Indonesia which are still listed on the Indonesia Stock Exchange in 2011-2018, (3) Commercial banks in Indonesia which publish financial statements for the period ending 31 December during the span of the study year 2011-2018. Based on the predetermined criteria, 15 banks were selected that could be sampled in this study, namely in table 1.

**Table 1. List of the Banks**

No	Name of Banks
1	PT. Bank Rakyat Indonesia (Persero), Tbk.
2	PT. Bank Mandiri (Persero), Tbk.
3	PT. Bank Central Asia (Persero), Tbk.
4	PT. Bank Negara Indonesia (Persero), Tbk.
5	PT. Bank Tabungan Negara (Persero), Tbk.
6	PT. Bank CIMB (Persero), Tbk
7	PT. Bank Panin (Persero), Tbk.
8	PT. Bank OCBC (Persero), Tbk.
9	PT. Bank Maybank (Persero), Tbk.
10	PT. Bank Danamon (Persero), Tbk.
11	PT. Bank Permata (Persero), Tbk.
12	PT. Bank BJB (Persero), Tbk

No	Name of Banks
13	PT. Bank Bukopin (Persero), Tbk
14	PT. Bank UOB (Persero), Tbk
15	PT. Bank Tabungan Pensiunan Nasional (Persero), Tbk

Source: Bureau Van Dijk (2018)

### Data Type and Sources

Data types that used in this research is secondary data which is taken from conventional banks with the largest assets in Indonesia that covers up Third-Party Funds (DPK), Capital Adequacy Ratio (CAR), CASA ratio, inflation, BI rate dan total loan in the 2011-2018 period of time on the data panel. Those data is processed again according to the analysis method that are used. Source of data comes from Bank Indonesia's publication results, ([www.bi.go.id](http://www.bi.go.id)), Authority of Finance Services ([www.ojk.go.id](http://www.ojk.go.id)) and Bureau Van Dijk ([www.orbis.bvdinfo.com](http://www.orbis.bvdinfo.com)).

### Descriptive Statistics

These are the following description of descriptive statistics from variables that are observed in this research.

**Table 2. Descriptive Statistics Test Result**

Variable	Mean	Standard Deviation	Minimum	Maximum	Observation (N)
DPK	25.68395	0.8543644	24.29612	27.57368	120
CAR	17.28067	3.522606	9.24	25.26	120
CASA	47.6765	14.52073	17.46	78.9	120
Inflation	4.94875	1.34521	3.2	6.97	120
BI Rate	6.2375	0.9284543	4.5	7.5	120
Total Credit Distribution	25.60137	0.8290642	24.0824	27.43673	120

Source: *EViews output*

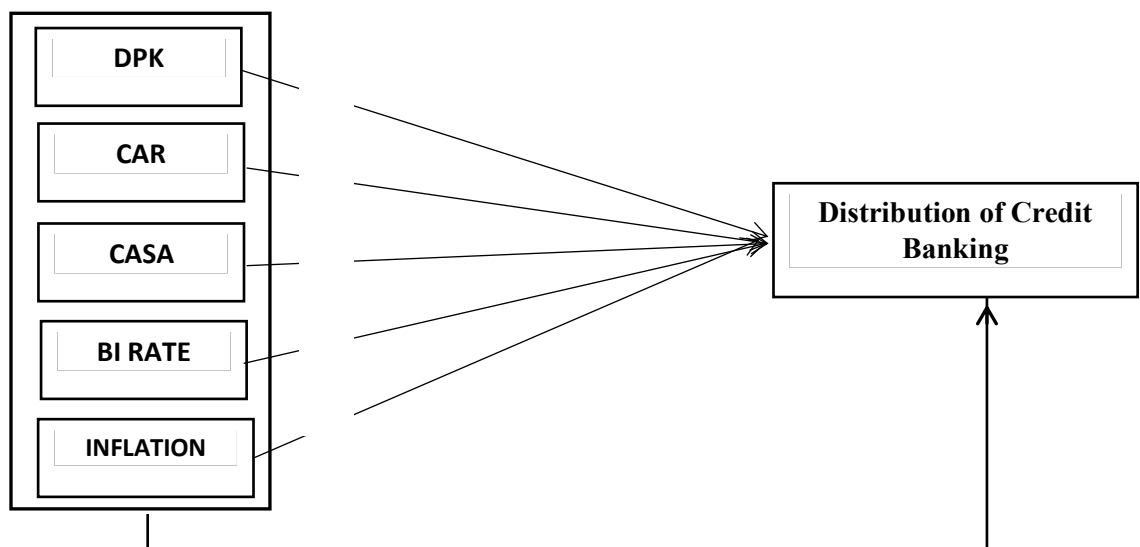
DPK variables has a minimum value of 24.29612 and a maximum value of 26.57368. An average DPK variable's value of 25.68395 with a standard deviation of 0.8543644. A CAR-variables has a minimum value of 9.24 and maximum value of 25.26. With an average CAR variable value of 17.28 with a standard deviation of 3.5226. CASA variable has a minimum value of 17.46 and maximum value of 78.9. Average CASA variable value of 47.6765 with a standard deviation of 14,52. Inflation variable has a minimum value of 3.2 and maximum value of 6.97. Average inflation rate valor of 4.94875 with a standard deviation of 1.34521. BI Rate variable has a minimum value of 4.5 and a maximum value of 7.5. Average BI Rate value of 6.2375 with a standard deviation of 0.9285. Total variable of credit distribution has a minimum value of 24.0824 and a maximum value of 27.43673. Total average of credit distribution value of 25.6 with a standard deviation of 0.829.

### Analysis Method

Analysis in this research uses the regression data panels which is the combined data between time-series data and cross-section data. There are two types of data panels which are balanced data panel and unbalanced data panel, balanced data panel is the state where cross-sectional unit has the same amount of time series observation (Sekaran 2007)(Sekaran 2007). While unbalanced data panel is the state when cross-sectional unit has different amount of time series observation. In this research, we uses the balanced data panel. As for stages or steps, this data panel's regression method is by making quantitative analysis that consists of: (1) Estimating of regression model by using data panel, (2) Classic assumption test, (3) Selecting regression model data panel, and (4) Hypothesis test.

### Idea Structure

Idea structure on this research is the relationship between Third-Party Funds (DPK), Capital Adequacy Ratio (CAR), CASA ratio, inflation and BI Rate towards the distribution of credit banking as illustrated on this picture below.



**Figure 1. Mind Map**

Source: Author

### Hypothesis

Hypothesis is done to this research as follows.

1. It was suspected that DPK variable gave a significant effect partially towards the distribution of credit banking in Indonesia.
2. It was suspected that CAR variable gave a significant effect partially towards the distribution of credit banking in Indonesia.

3. It was suspected that CASA variable gave a significant effect partially towards the distribution of credit banking in Indonesia.
4. It was suspected that Inflation variable gave a significant effect partially towards the distribution of credit banking in Indonesia.
5. It was suspected that BI Rate variable gave a significant effect partially towards the distribution of credit banking in Indonesia.
6. It was suspected that DPK, CAR, CASA, Inflation and BI Rate variables gave a significant effect simultaneously towards the distribution of credit banking in Indonesia

#### 4. Empirical Findings/Result

##### Paired Test

Based on paired tests that have been carried out, the following results are obtained,

**Table 3. Paired Test**

Method	Hypothesis	Results
Chow Test	$H_0$ : Common Effect $H_a$ : Fixed Effect	$H_a$ accepted (Prob. Cross Section F = <b>0.000 &lt; 0.05</b> )
Hausman Test	$H_0$ : Common Effect $H_a$ : Fixed Effect	Cross-section test variance is invalid. Hausman statistic set to zero.

Source: EVIEWS output

Based on the Chow test, the multiple regression model that fits the panel data in this study is the Fixed Effect Model

##### Classic Assumption Test

In producing the right estimation of parameter model value, a test has to be done to show if the model diverted from the classic assumption or not.

##### Multicollinearity Test

Multicollinearity refers to part of a situation where one or more independent variable could be stated as collinear combination from other variable. This test is done to know whether in this regression will be found a correlation between the independent variable or not. If there's a correlation found between the independent variable that are observed, there should be a multicollinearity problem. Ways to do the multicollinearity test is by doing a correlation test. If the score of correlation is more than 0.8, then there's a multicollinearity problem between the independent variable (Indrajaya 2019).

**Table 4. Correlation Test**

	DPK	CAR	CASA	SBI	INF
DPK	1	0.17386	0.75766	-0.06833	-0.114705
CAR	0.17386	1	-0.006698	-0.261095	-0.37349
CASA	0.75766	-0.006698	1	-0.033058	-0.010047

SBI	-0.068331	-0.261095	-0.033058	1	0.713165
INF	-0.114705	-0.373489	-0.010047	0.713165	1

Source: EVIEWS output

According to table 4, all the correlation score value is less than 0.9, so that there's no multicollinearity problem between the independent variables (Indrajaya, 2019).

### Heteroscedasticity Test

A regression model is said to have a heteroscedasticity problem if there's a dissimilarity of variance from residual of one observation to another. If the variance from residual of one observation to another is different, then it could be said that it's heteroscedasticity or non-homoscedasticity. The presence of this heteroscedasticity could cause an approximation that are insufficient. Heteroscedasticity could be detected by a few statistical test, one of it is by the Breusch-Pagan test. If the value Prob. Chi-Square is less than the signification level, then there's an indication of heteroscedasticity or violation of homoscedasticity assumption.

### Table 5. Breusch-Pagan Test Results

Obs*R-squared	10.92163
Prob. Chi-Square	0.0530

Source: EVIEWS output

According to table 5, score value of Prob. Chi-Square (0.0530) is higher than the significant level of 0.05, so it could be stated that there's no problem of heteroscedasticity.

### Normality Test

Normality test is used to show that the sample data comes from the population that distributed normally. Normality assumption test is done to residual that comes from its regression model. A few of the normality test among it are the Skewness-Kurtosis test, Kolmogorov-Smirnov test and the Jarque Bera test. According to the Kolmogorov-Smirnov test, if the probability is bigger than 5% or 0.05, then the data is distributed normally (Indrajaya 2019).

### Table 6. Kolmogorov-Smirnov Test Result

P-Value	
Combined K-S	0.410

Source: EVIEWS output

According to table 6, combined value of K-S (0.410) is higher than the significant value of ( $\alpha$ ), so the data has been distributed normally.

### Hypothesis Test

#### Individual Parameter Significance Test (t Test)



The result of the individual parameter significancy test using the FEM with cross-section weights method is shown on this table down below.

**Table 7. t-Test Results**

Variable	Co-efficient	Standard Error	t	Prob.
Constanta	-3.824459	0.593680	-6.441958	0.0000
DPK	1.129433	0.022681	49.79562	0.0000
CAR	0.010924	0.002143	5.098237	0.0000
CASA	0.002176	0.000853	2.551113	0.0123
BI RATE	0.009445	0.006224	1.517509	0.1323
INFLASI	0.013349	0.004752	2.809040	0.0060

Source: *Output* EVIEWS

### Regression Model

The individual effect values of 15 commercial banks with the largest assets in Indonesia year 2018 is shown on the table 8.

**Table 8. Individual Effect Results**

No	Bank	Effect
1	PT. Bank Rakyat Indonesia (Persero), Tbk	-0.311169
2	PT. Bank Mandiri (Persero), Tbk	-0.286808
3	PT. Bank Central Asia (Persero), Tbk	-0.413616
4	PT. Bank Negara Indonesia (Persero), Tbk	-0.245283
5	PT. Bank Tabungan Negara (Persero), Tbk	0.061129
6	PT. Bank CIMB (Persero), Tbk	0.064118
7	PT. Bank Panin (Persero), Tbk	0.031153
8	PT. Bank OCBC (Persero), Tbk	0.056069
9	PT. Bank Maybank (Persero), Tbk	0.200097
10	PT. Bank Danamon (Persero), Tbk	0.293893
11	PT. Bank Permata (Persero), Tbk	0.050329
12	PT. Bank BJB (Persero), Tbk	0.093628
13	PT. Bank Bukopin (Persero), Tbk	0.076785
14	PT. Bank UOB (Persero), Tbk	0.149477
15	PT. Bank Tabungan Pensiunan Nasional (Persero), Tbk	0.180200

Source: *output* EVIEWS

According to table 7 and table 8, the equation model of the most suitable data panel estimation result is as follows.

$$\begin{aligned}
Y_{it} = & -3.824459 + 1.129433 DPK_{it} + 0.010924 CAR_{it} + 0.002176 CASA_{it} \\
& + 0.009445 BI_t + 0.013349 INF_t - 0.311169 D_{BRI} \\
& - 0.286808 D_{MANDIRI} - 0.413616 D_{BCA} - 0.245283 D_{BNI} \\
& + 0.061129 D_{BTN} + 0.064118 D_{CIMB} + 0.031153 D_{PANIN} \\
& + 0.056069 D_{OCBC} + 0.200097 D_{MAYBANK} + 0.293893 D_{DANAMON} \\
& + 0.050329 D_{PERMATA} + 0.093628 D_{BJB} + 0.076785 D_{BUKOPIN} \\
& + 0.149477 D_{UOB} + 0.1802 D_{BTPN}
\end{aligned}$$

Explanation:

$Y_{it}$  = Natural logarithm of The distribution of credit banking of company- $i$ , year- $t$

$DPK_{it}$  = Natural logarithm of DPK value of company- $i$ , year- $t$

$CAR_{it}$  = CAR value of company- $i$ , year- $t$

$CASA_{it}$  = CASA ratio of company- $i$ , year- $t$

$INF_t$  = Inflation of year- $t$

$BI_t$  = BI Rate of year- $t$

$D_i$  = Individual effect of bank- $i$ , where  $i$  = BRI, MANDIRI, ..., BTPN.

### Simultaneous Significance Test (F Test)

F test is done to know that if independent variables could be simultaneously influential to the dependent variable. A test to the FEM method is done by comparing the significance value ( $\text{Prob} > F$ ).

**Table 9. F Test Result**

R-Squared	0.9975
Prob > F	0.000
Number of Observations	120

Source: Result output EViews

According to table 9, the value of  $\text{Prob} > F = 0.000$ . Therefore the value of  $\text{Prob} > F$  is lower than the value of  $\alpha$  which is 0.05, which means that variabel DPK, CAR, CASA, inflation, and BI rate significantly effective towards the distribution of credit to the commercial banks that are studied simultaneously.

Next, a hypothesis test is done as follows:

#### 1) Hypothesis 1

The first hypothesis is used to test out the truth that Third-Party Funds (DPK) is significantly effective towards the distribution of credit banking to 15 commercial banks with the largest assets in Indonesia year 2018.

$H_0$ : DPK is not significantly effective towards the distribution of credit banking.

**$H_1$ :** DPK is significantly effective towards the distribution of credit banking, According to the calculation of the data panel analysis for the DPK variable, a probability value of 0.000 is earned. The probability value  $t$  is lower than the significancy level of 0.05 (prob.  $t < 0.05$ ). In conclusion,  **$H_a$**  is accepted, so it could be stated that DPK is positively and significantly effective towards the distribution of credit banking of the 15 commercial banks with the largest assets in Indonesia year 2018.

## 2) Hypothesis 2

The second hypothesis is used to test out the truth that Capital Adequacy Ratio (CAR) is significantly effective towards the distribution of credit banking to 15 commercial banks with the largest assets in Indonesia year 2018.

**$H_0$ :** CAR is not significantly effective towards the distribution of credit banking.

**$H_2$ :** CAR is significantly effective towards the distribution of credit banking.

According to the calculation of the data panel analysis for the CAR variable, a probability value of 0.000 is earned. The probability value  $t$  is lower than the significancy level of 0.05 (prob.  $t < 0.05$ ). In conclusion,  **$H_a$**  is accepted, so it could be stated that CAR is positively and significantly effective towards the distribution of credit banking of the 15 commercial banks with the largest assets in Indonesia year 2018. The result of this research is according to the research done by Sari (2013) which stated that DPK and CAR is positively and significantly effective towards the distribution of credit banking.

## 3) Hypothesis 3

The third hypothesis is used to test out the truth that CASA ratio is significantly effective towards the distribution of credit banking of 15 commercial banks with the largest assets in Indonesia year 2018.

**$H_0$ :** CASA is not significantly effective towards the distribution of credit banking.

**$H_3$ :** CASA is significantly effective towards the distribution of credit banking.

According to the calculation of the data panel analysis for the CASA variable, a probability value of 0.0123 is earned. The probability value  $t$  is lower than the significant level of 0.05 (prob.  $t < 0.05$ ). In conclusion,  **$H_a$**  is accepted, so it could be stated that CASA is positively and significantly effective towards the distribution of credit banking of the 15 commercial banks with the largest assets in Indonesia year 2018.

## 4) Hypothesis 4

The fourth hypothesis is used to test out the truth that BI rate is significantly effective towards the distribution of credit banking of 15 commercial banks with the largest assets in Indonesia year 2018.

**$H_0$ :** BI rate is not significantly effective towards the distribution of credit banking.

**$H_a$ :** BI rate is significantly effective towards the distribution of credit banking. According to the calculation of the data panel analysis for the BI rate variable, a probability value of 0.1323 is earned. The probability value  $t$  is higher than the significant level of 0.05 (prob.  $t > 0.05$ ). In conclusion,  **$H_a$**  is rejected, so it could be stated that BI rate is not significantly effective towards the distribution of credit banking to the 15 commercial banks with the largest assets in Indonesia year 2018. The result of this research is according to the research done by Haryanto (2017) which stated that BI rate does not give a significant effect towards commercial banks's distribution of credit, but it's contradicted towards the research that was done by Sari (2013) which stated that BI rate does give a significant effect towards commercial bank's distribution of credit.

#### 5) Hypothesis 5

The fifth hypothesis is used to test out the truth that inflation is significantly effective towards the distribution of credit banking to 15 commercial banks with the largest assets in Indonesia year 2018.

**$H_0$ :** Inflation is not significantly effective towards the distribution of credit banking.

**$H_a$ :** Inflation is significantly effective towards the distribution of credit banking. According to the calculation of the data panel analysis for the Inflation variable, a probability value of 0.006 is earned. The probability value of  $t$  is lower than the significant level of 0.05 (prob.  $t < 0.05$ ). In conclusion,  **$H_a$**  is accepted, so it could be stated that inflation is significantly effective towards the distribution of credit banking of the 15 commercial banks with the largest assets in Indonesia year 2018.

#### 6) Hypothesis 6

The sixth hypothesis is used to test out the truth that all independent variables are significantly effective simultaneously towards the distribution of credit banking of 15 commercial banks with the largest assets in Indonesia year 2018.

**$H_0$ :** Inflation is not significantly effective towards the distribution of credit banking.

**$H_a$ :** Inflation is significantly effective towards the distribution of credit banking. According to the calculation of the data panel analysis for simultaneous of all independent variables, a probability value of 0.000 is earned. The probability value of  $F$  is lower than the significant level of 0.05 (prob.  $F < 0.05$ ). In conclusion,  **$H_a$**  is accepted, so it could be stated that DPK, CAR, CASA, Inflation and BI rates variables are significantly effective simultaneously towards the distribution of credit banking of the 15 commercial banks with the largest assets in Indonesia year 2018.

### Co-efficient Determination ( $R^2$ )

Co-efficient determination is used to explain the variety percentage in respond/dependent variable (Y) which are caused by the explanatory/independent variable (X). The  $R^2$  value is placed between 0 and 1. If the co-efficient determination value is equals to zero, then the variety from the dependent variable cannot be explained by the independent variable at all. If the co-efficient determination values is equals to one, then the variety from the dependent variable could be explained by the independent variable thoroughly. Researchers were advised to the *Adjusted R<sup>2</sup>* value when evaluating the best regression model to minimise the occurrence of bias towards the amount of the independent variable in the model. The *Adjusted R<sup>2</sup>* value could be set by using the formula as follows.

Adjusted  $R^2 = 1 - (1 - R^2) \left( \frac{n-1}{n-k-1} \right)$ . In this research,  $n = 120$ ,  $k = 5$  dan  $R^2 = 0.9975$ . So the Adjusted value of  $R^2 = 0.9974$  is earned, means that the variety of dependent variable could be explained at 99.74% by the independent variables that are observed.

**Table 10. Factor Credit Score for 2018**

Factor	Component	Ratio	Credit Value	Credit Rating Max 100	Weight	Weighted Value
1	2	3	4	5	6	7 = 5x6
CAPITAL	CAR	11,35	114,5	100	30%	30
ASSET	KAP	2	136,67	100	25%	25
MANAJEMEN	NPM	77,76	77,76	77,76	20%	15,55
EARNING	ROA	0,98	65,33	65,33	5%	3,26
LIKUIDITAS	CR	30,42	608,40	100	5%	5
<b>TOTAL HEALTH RATE VALUE</b>					100%	91,33

Source: Research data that is processed

## 5. Discussion

According to the discussion above, it could be concluded as follows. Empirical result of this research shows that commercial banks with the largest assets in Indonesia according to Bureau Van Dijk year 2018, DPK variable, CAR, CASA, inflation, and BI rate is simultaneously significantly effective towards the distribution of credit. Among the following independent variables, the most dominant in affecting bank's ability in the distribution of credit is DPK. This could be seen from the highest score value of the co-efficient on the DPK co-efficient is  $1.129433$ . The test results t on table 7, Third-Party Funds variable has a positive and significant effect towards the distribution of credit banking.

Third-Party Funds (DPK) is the main important source of fund in the banking operational process and is the succeed standard of the bank itself. The higher Third-Party Funds banking, the better ability the bank has in distributing their credit.

According to the multiple linear regression table (*t* test), an increase of DPK for 1% would be followed with an increase of distribution of credit for **1.129433%**. While CAR, CASA and Inflation variables each also has a positive and significant effect towards the distribution of credit banking. CAR, CASA and Inflation ratio that increases will show the stability of the total capital and the lower risk the bank has in funding operational activities, and could also give contribution towards the bank's profitability, so it enables the bank in distributing a greater amount of credit. According to the multiple linear regression table (*t* test), an increase of CAR

for 1% would be followed with an increase of distribution of credit for **0.010924%**. An increase of CASA for 1% would be followed with an increase of distribution of credit for **0.002176%**. An increase of Inflation for 1% would be followed with an increase of distribution of credit for **0.013349%**. On the other hand, BI rate variable does not directly affect significantly towards the distribution of credit banking. Means every increase of BI rate variable each of 1%, would not be followed with an increase of credit banking distribution. This variable does not affect the amount of credit banking distribution. It could be because BI rate variable is not directly used as the main guidance that are used by the bank management in deciding the total amount of credit that'll be distributed. The bank is more considering other indicators as the main factor in making decisions regarding the credit that'll be distributed to decide the healthiest level for the bank in operational activities. Meanwhile, DPK, CAR, CASA, BI rates and inflation simultaneously have a significant effect on credit banking

### Recommendation

Considering that the Third-Party Funds variable has the largest impact towards the amount of credit distributed, then the activities of the company in collecting source of fund that comes from Third-Party Funds should be improved. Moreover, the usage of capital should be optimised, so fund won't be left unused. Aside from that, the policy in setting the main interest credit rate on each commercial banks should be monitored, as it could be a strategy for the banking company to increase the amount of credit distributed

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