

Analysis of the Capital Adequate Ratio (CAR), Non-Performing Loans (NPL), and Return on Assets (ROA) Effect on Credit Distribution of Commercial Banks Listed on the Indonesia Stock Exchange

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ABSTRACT

This research aims to determine the influence of Capital Adequacy Ratio (CAR), Non-Performing Loan (NPL), and Return on Asset (ROA) effect on the Commercial Bank Credit Distribution. The population of this research is the 36 banking sector companies listed on the Indonesia stock exchange for the 2015-2018 period, the 30 companies among them chosen as the research sample. Analysis of data used in this research is multiple linear regressions. The result shows that the Capital Adequacy Ratio (CAR) gives a positive and significant influence on the Distribution of Credit. Meanwhile, Non-Performing Loan (NPL), and Return on Asset (ROA) give a negative and significant influence on the Distribution of Credit.

Keywords: Capital Adequacy Ratio (CAR), Distribution of Credit Capital, Non-Performing Loans (NPL), Return on Assets (ROA)

INTRODUCTION

Economic growth in Indonesia has rapidly developed. This is inseparable from the role of banking institutions as financial institutions that regulate, collect, and channel public funds in the form of deposits. "The dynamics of community economic activity requires that each bank is able to provide trust for the community in the main function of the bank, namely as an institution intermediary finance that collects and distributes funds to the public efficiently" (Sukmawati and Purbawangsa, 2016: 5399). The collection and distribution of funds carried out by the bank will be in line with the main objectives of the banking system, that is achieving optimal profitability. "Profitability is the company's ability to generate or earn profits during a certain period by using productive assets or capital, both capital as a whole and own capital" (Munawir, 2010: 33).

The higher the profitability of a bank, the better the financial performance. Profitability can be measured using ROA. "An increase in this ratio means an increase in net profit from the bank concerned, thus it causes an increase in the stock price of the bank" (Dendawijaya, 2009: 119). To increase profitability, a bank management requires capital adequacy to support assets. Capital adequacy measurement is observable through CAR by comparing its net capital with the total Risk Weighted Assets (RWA).

In reference to its definition, one of the functions of a bank is to extend credit. This activity carries the risk of non-performing credit payments or commonly referred to as bad debt. Credit risk is commonly referred to as NPL (*Non-Performing Loans*)

calculated by comparing non-performing loans to total loans. "The extent of NPLs is part of the reason of bank hardship in channeling credit. Consequently, based on Bank Indonesia regulation Number 18/14 / PBI / 2016, the maximum NPL value is 5% "(www.bi.go.id, 2012).

At the same time, despite having its own risk "One of the bank's profits is obtained from the activities of lending to the community, thusly, the bank must be able to bring off and preserve the activities of credit distribution to work out as the time given" (Komaria and Diansyah, 2019: 32). Lending is the most important bank activity in generating profits. However, the greatest risk also comes from this" (Fahmi et al., 2016: 29). "Bank Indonesia (BI) reported that bank lending reached Rp 5,489.6 trillion in August 2019. This figure is growing 8.6 percent annually." (www.kompas.com, 2019). Credit distribution by commercial banks in Indonesia is supposed to be able to drive the pace of the economy and properly absorbable by the public.

Pursuant to previous researches, there are *gaps* or differences in the findings, related to the influence of CAR, ROA and NPL (*Non Performing Loans*) on commercial banks listed on the Indonesia Stock Exchange. Some studies conclude ROA, CAR and NPL have no effect on credit distribution while the others conclude otherwise. Setting out from those gaps, this study aims to analyze CAR, NPL, and ROA towards commercial banks lending listed on the Indonesia Stock Exchange in 2015-2018.

RESEARCH METHOD

This study is a quantitative research. In reliance on the purpose, this study is classified into explanatory research. This study seeks to test hypotheses stating a causal relationship between two or more variables. In this research what to find is the influence of CAR, NPL, and ROA towards Credit Distribution (Lending). The population in this study is all of 36 commercial banks listed on the Indonesia Stock Exchange for the 2015-2018 period. The samples are 30 commercial banks listed on the Indonesia Stock Exchange consecutively in 2015-2018.

The data source in this study is secondary data. According to Bungin (2005: 132) "Secondary data is that obtained from second or secondary sources". The data is banking company information obtained from the Indonesian Capital Market Directory (ICMD) website in 2015-2018. In addition, the data is also derived from documents published by the Indonesia Stock Exchange (IDX), to be precise, the companies' financial statements registered in the Notes to Financial Statements (CALK) of the banking sector companies for the 2015-2018 period.

The analysis method used in this study is multiple linear regression with alpha 5%. Prior to the multiple regression test, these variables must meet the classical assumption requirements comprising normality, autocorrelation, multicollinearity, and heteroscedasticity tests.

RESULTS AND DISCUSSION

Classical Assumption Test

The normality test results, perceived from the p plot, showing that the points approach the diagonal line, suggest that the assumption of normality is eligible. According to Santoso (2010: 215), when the Durbin-Watson number ranges from -2 to +2, it implies no autocorrelation. Based on the Durbin-Watson SPSS output, the number

1.902 means that there is no autocorrelation, thus the regression model is feasible to use.

The multicollinearity test results Collinearity Statistics with tolerance value of < 0.1 . This suggests no correlation between independent variables with values more than 95%. The results from the calculation of VIF suggest the similar situation. The heteroscedasticity test, using *Scatterplot*, exposes that the data distribution around the number 0 on the Y axis shape neither a certain pattern nor a line. It can be entered into that there is no heteroscedasticity in the regression model, as a result the regression model is feasible to use in this research.

Multiple Linear Regression Analysis

The results of multiple linear regression analysis show a constant of 13,588,879,078 suggesting that Credit Distribution (Y) is positive 13,588,879,078. CAR Coefficient of -0.301 implies that every one unit addition on CAR, the credit distribution decreases by 0.301. This study supports Putri and Akmalia (2016) findings.

NPL Coefficient of -0.147 implies that every one unit addition on NPL, the credit distribution decreases by 0.147. This promotes Komaria and Diansyah (2019) findings. ROA Coefficient of -0.031 implies that each one unit addition on ROA, the credit distribution decreases by 0.031. This supports Komaria and Diansyah (2019) findings which is pursuant to Sukmawati and Purbawangsa's study (2016).

Table 1: Multiple Linear Regression Results

Models	Unstandardized Coefficients		Standardized coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	13588879,078	2150991.708		6,317	.000
CAR	-307958,812	90136,881	-.301	-3,417	.001
NPL	-1707432,725	1023856,390	-.147	-1.668	.098
ROA	-7828,516	22589,473	-.031	-.347	.730

Based on the table above:

1. H_1 : CAR positively affects on credit distribution of commercial bank listed on the Indonesia Stock Exchange (2015-2018).

CAR (X_1) has a t-value of 3.417 > t table of 1.980, implying that CAR has an effect on credit distribution. Significance value (sig). is 0.001. Considering (P-value 0.001 < 0.05), CAR has a significant effect on credit distribution (Y). If the significance value (sig). is < probability 0.05 then the influence of the independent variable (X) on the dependent variable (Y) occurs or the hypothesis is acceptable. In this research CAR significantly and positively affects on credit distribution (Y), as a result it leads to conclusion that H_a accepted.

Theoretically, the results of this study are in accordance with Dendawijaya (2010: 112). Capital Adequacy Ratio is the bank performance ratio to measure the owned capital adequacy to support assets either containing or generating risk, as the example, loans. Empirically, the results of this study support Nur Ahmadi Bi Rahmani

(2017), Yua Molek Winarti and Alien Akmalia (2016), and Bambang Sudiyatno (2010) findings suggesting that CAR has a significant and positive effect.

The higher CAR the better the bank's ability to bear the risk of any risky credit or productive assets. Credit is allegedly risky when it has the potentials to turn into bad credit, which in turn affects CAR. Decreased CAR would not be an issue when the CAR meets the conditions set by Bank of International Settlements (BIS). Capital Adequacy Ratio is bank capital to deal with either the operational activity or the loss possibility support that will occur.

A high CAR Score indicates a stable capital condition raising the bank ability in anticipating losses arising from credit distribution. In addition, CAR reflects the capital amount owned by the bank, with its sufficiently high amount, its ability to extend credit will be higher.

2. H₂: NPL negatively affects credit distribution of commercial bank listed on the Indonesia Stock Exchange (2015-2018).

NPL (X₂) has a t-value of 1.668 < t table of 1,980, indicating that NPL has no effect on credit distribution. Significance value (sig). is 0.098, considering (P-value 0.098 > 0.05), NPL has no significant effect on credit distribution (Y). If the significance value (sig). is > probability 0.05 then the influence of the independent variable (X) on the dependent variable (Y) is absent, in other words the hypothesis is rejected. In this research NPL has no significant effect on credit distribution (Y), thus, it can be deduced that H_a is rejected.

Theoretically, the results of this study are in accordance with Putri and Akmalia (2016: 84) findings stating "Collectability assessments can be grouped into 5: *pass, special mention, substandard, doubtful, and loss*". Empirically, this study supports Komaria and Diansyah (2019) findings stating that NPL has no influence and no significance.

NPL is a risky or bad credit. The higher the NPL value, the greater the risk credit borne by the bank. This results in more prudent channeling credit. According to Roheni (2012), high NPL drives banks to provide greater reserves causing capital eroding, even if the capital greatly affects the amount of credit expansion. Therefore, the NPL scale will cause a decline in credit distribution.

In banking, the bank's credit distribution may involve non-payment risks affecting the performance. These are commonly referred to as bad credit or *Non Performing Loans*. For the extent, Bank Indonesia has determined NPL amount of 5%. High NPL leads to lowering funds disbursed through credit, since banks must develop larger write-off reserves. In addition, its results bank prudent policy in channeling credit.

3. H₃: ROA positively affect on credit distribution of commercial bank listed on the Indonesia Stock Exchange (2015-2018).

ROA (X₃) shows t-value of 0.347 < t table of 1.980, suggesting that ROA has no effect on credit distribution. The significance value (sig). is 0.730. Considering (P-value 0.730 > 0.05), ROA has no significant effect on credit distribution (Y). If the significance value (sig). is > probability 0.05, the influence of the independent variable (X) on the dependent variable (Y) is absent or the hypothesis is rejected. In this study

ROA has no significant effect on credit distribution (Y). It leads to conclusion that H_a is rejected.

Theoretically, the results of this study are in accordance with Dendawijaya (2010: 119) stating that ROA is a ratio used to measure the bank management ability in obtaining overall profits. Empirically, the results of this study supports the findings of Komaria and Diansyah (2019) and Jazilatun Najakhah, Saryadi, Sendhang Nurseto (2014) stating that ROA has insignificant or negative effect.

The development of credit volume over the years tends to increase, however with a closer look, it shows fluctuations. High ROA shows that the bank makes a high profit from lending activities. This implies that the bank has optimally utilized its assets and is seating capacity to obtain revenue. Over that high profit from lending, the bank will pursue channeling loans for higher profits. Therefore, high ROA will raise credit distribution.

4. CAR, NPL, and ROA has a simultaneous effect on credit distribution of commercial bank listed on the Indonesia Stock Exchange (2015-2018).

CAR, NPL, and ROA has a simultaneous effect on credit distribution of commercial bank listed on the Indonesia Stock Exchange (2015-2018). Based on table 4.6 the value of Sig. F is $< \alpha$ is $0.000 < 0.05$, thus, the regression analysis model is significant. This means that H_0 is rejected and H_a is accepted. This leads to conclusion that CAR (X1), NPL (X2) and ROA (X3) simultaneously and significantly influence on Credit Distribution (Y). If employees' CAR, NPL and ROA increase, Credit Distribution increases.

From the existing data, banks' CAR shows a declining trend, concurrently banks' Non-Performing Loans (NPLs) shows increasing trend. The increase of NPL is available since many banks lend funds to raise their ROA, which in turn decline their CAR. It goes both ways. If there is an increase on CAR, NPL declines. CAR rising reflects both idle funds and smaller borne credit risk. The excessive idle fund leads the bank to be unproductive in running the funds it has. It will reduce the bank's performance; as well its liquidity is disrupted.

This study is empirically consistent with Suci Prihartini (2018) findings suggesting that CAR and NPL significantly influence ROA. CAR, NPL, and ROA significantly influence the distribution of KUR. The Sobel test results identifies that there is an indirect effect between CAR and NPL on the distribution of KUR with ROA as mediation. Erdi Isaiyah Mamahit (2018) suggests that CAR, NPL and ROA affect simultaneously on credit distribution.

CONCLUSIONS

This study results show that CAR significantly and positively affects on credit distribution. Therefore, the company in running its activities should put capital, interest, and costs into consideration to maintain its sustainability. NPL does not have a significant effect on credit distribution; therefore companies must attempt to regulate non-performing loans to avoid the excess limit set by Bank Indonesia. ROA has no significant effect on credit distribution, banks must pursue to preserve and increase their profitability.

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