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ANALYSIS OF THE EFFECT OF TPF, CAR, NPL, AND INFLATION AND BI RATE ON LOAN DISTRIBUTION

(Empirical Study on Commercial Banks Listed on the Indonesia Stock Exchange for the Period 2017-2019)

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Abstract

Purpose – The purpose of this study was to determine the effect of Third Party Funds (DPK), Capital Adequacy Ratio (CAR), Non Performing Loans (NPL), inflation, and the BI rate.

Design/methodology/approach – The type of data used in this study is secondary data for commercial banks in Indonesia in 2017-2019 which includes Third Party Funds (DPK), Capital Adequacy Ratio (CAR), Non Performing Loans (NPL), inflation and BI rate. Sampling in this studywas determined using purposive sampling technique. The population in this study were 44 commercial banks listed on the Indonesia Stock Exchange (BEI) from 2017-2019. This study uses multiple linear regression analysis with the SPSS application

Findings– This study has several finding, Capital Adequecy Ratio (CAR) has a negative effect on lending ,Non Performing Loan has a negative effect on lending, Inflation has a negative effect on lending, The bi rate has no effect on lending

Reseach limitations/implications – This study has several limitations, namely This study only uses data from 2017-2019 so the data obtained by researchers is still limited.

Originality/value –

Keywords: DPK, CAR, NPL, inflation, BI rate

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1. BACKGROUND

Based on Law Number 10 Years 1998 Regarding banking, a bank is said to be a business entity that collects funds from the public in the form of deposits and will be channeled back to the public in the form of credit and / or other forms to improve the community's economy.One of the Bank activities that is needed by the public is credit. According to Nugraheni & Meiranto (2013) factors that influence lending include internal factors such as Third Party Funds (DPK), Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Return on Assets (ROA), and Non Performing Loan (NPL), as well as external factors such as inflation.

Funds collected by the public which are the largest source of the bank are called DPK. The Capital Adequacy Ratio or Capital Adequacy Ratio has an influence on lending. Amelia & Murtiasih (2017)stated that operational activities that provide a sizeable contribution to banks in lending are marked by a high CAR which reflects a stable amount of capital and a low risk to the bank. Apart from capital, banks basically have credit risk in the form of non-performing loans (NPLs). The higher the NPL, the higher the credit risk borne by the bank(Kesuma, 2018). Bank external factors can also affect credit, such as inflation. Inflation is an event of an increase in the price of goods or services in general. The increase in inflation causes customers to withdraw funds from banks to meet their needs due to increased goods and services. So that the people's desire to collect funds decreases(Sari & Abundanti, 2016). Banking activities can be affected by economic conditions, namely interest rates and inflation. This is an external factor that can affect the level of lending. In making decisions regarding credit policy, a bank must analyze the benchmark interest rate or BI rate(Putra & Rustariyuni 2014).

Based on this explanation, this study wanted to determine the effect of TPF, CAR, NPL, inflation and the BI rate in commercial banks for the 2017-2019 period.

2 LITERATURE REVIEW

2.1 Supply Theory

In theory this is the same as the activity of offering money by banks to the public. The classical money supply theory stems from the theory of the money supply in society (quantity of money) put forward by Irving Fisher. In economics, the law of supply depends on demand, in this study the request is a request for credit by debtors. The amount of money in circulation will affect the demand for money made by the debtor, if the interest rate offered is low, the demand will increase. On the other hand, if interest rates are high, the demand for money will decrease. This resulted in decreased credit distribution.

2.2 Hypothesis Development

2.2.1 Effect of Third Party Funds on Lending

Third party funds are a collection of funds from the public which is the largest source of funds for the bank. The more third party funds collected, the easier it is for banks to channel credit (Darmawan, 2018). Based on the theory of supply, the greater the third party funds, the more funds the bank will get. Associated with the theory of supply, namely the determination of the interest rate offered by the bank will affect public demand in collecting funds in the bank. If the loan interest rate offered is high, the greater the demand for the community to collect funds, so that the funds obtained by the bank will be high which can have an impact on the circulation of funds in lending to increase. Thus, the greater the third party funds, the higher the level of credit distribution.

This theory is supported by previous research conducted by Purba et al, (2016),Handayani (2018),(Aristyani et al, (2019) and (Prawitasari et al, (2020)which shows that TPF has a positive effect on lending. Therefore, the following hypothesis can be formulated:

H1: TPF has a positive effect on lending

2.2.2 The Effect of CAR on Lending

Capital Adequacy Ratio is the capital adequacy ratio used as a parameter to assess the capital factor in the Risk-Based Bank Rating method (Bank Indonesia Circular Letter no.13 / 24 / DPNP 2011). Pratiwi & Hindasah (2014) say that CAR is the ratio between the amount of capital owned by a bank and risk-weighted assets (RWA). Bank condition is said to be good if the CAR value exceeds 8%, so that it can increase credit distribution to the public. Based on the supply theory, it shows that the high level of bank capital adequacy will affect the fulfillment of public credit. If there is a lack of capital in a bank in fulfilling its capital, then this can hinder the bank from extending credit. However, if the capital adequacy value is getting higher, Several studies support that CAR has a positive effect on lending, including research conducted by Niteriasihani et al, (2016),Amelia & Murtiasih (2017) and Romance & Supardi (2019). This is in line with research conducted byAzizah et al, (2018), which obtained the result that there was a positive effect of CAR on lending. Therefore, the following hypothesis can be formulated:

H2: CAR has a positive effect on lending

2.2.3 The Effect of NPL on Lending

Non performing loan is the ratio used to describe the ability of bank management to manage non-performing loans provided by banks. The amount of capital greatly influences the amount of credit channeled by banks. If there are many losses from problem loans, then the funds owned by the bank will get smaller so that it can have an impact on the turnover of funds in credit distribution to decrease. In this case the opportunity for banks to offer their money will decrease and the public will lose their trust so that the public's demand for collecting money will also decrease.

Research according to Dharma et al, (2015)indicates that non-performing loans have a negative effect on lending. Research conducted byPrincess & Akmalia (2016) and Masodah (2018)also shows the same result, namely NPL has a significant negative effect on lending. However the research conducted by Haryanto & Widyarti (2017)shows that the NPL has no effect on lending. This is because although the credit extended to the public has increased, banks are able to control the NPL value lower than the standard limit set by Bank Indonesia, which is less than 5%. Based on the theory and results of previous research, the researchers formulated a hypothesis on the effect of non-performing loans on lending as follows:

H3: NPL has a negative effect on lending

2.2.4 Influence of Inflation on Lending

Inflation is one of the factors that can determine the level of credit interest set by banks. In this case, when there is an increase in inflation, it will affect the credit burden borne by the creditor. So that it can influence the public's decision to reduce the level of credit supply extended by banks. In the theory of supply and demand, when there is high inflation where the prices of goods and services increase, the bank will increase the credit interest rate. When interest rates rise, bank credit will tend to be expensive, thereby emphasizing public demand for credit, which can cause the amount of credit to decrease so that the money circulating in the community also decreases.

Several studies have found that inflation has a negative effect, including research conducted by Hariyanto (2012), Rokhim & Rusli (2012), Rohmadani & Cahyono (2016), Riani et al, (2018) therefore, the following hypothesis can be formulated:

H4: Inflation has a negative effect on lending

2.2.5 BI Influence Rate for Lending

BI rate is the reference interest rate set by BI to determine the deposit rate and credit interest rate so that if BI reduces the benchmark interest rate or BI rate it will lower the loan interest rate. The use of the BI rate as an external variable is used on the basis of determining the interest rates for loans that will be offered to the public. The increase in the BI rate greatly affects the credit interest rate offered to the public which results in a reduced desire for credit. So that if the BI rate increases, lending will decrease, on the other hand, if the BI rate decreases, lending will increase. The increase in loan interest rates causes people not to make loans which in the end the demand for credit will decrease and banks will experience difficulties in channeling funds. So that the BI rate for lending has a negative relationship.

Research conducted by Putra & Wirathi (2014), Hasanah & Priantina, (2017), and Pulungan & Muslih (2020) found that the Bank Indonesia (BI rate) has a negative effect on lending. Based on the assumptions and previous research, the following hypotheses can be formulated:

H5: BI rate has a negative effect on lending

3. RESEARCH METHODOLOGY

3.1 Research Design, Population and Sample

The type of data used in this study is secondary data for commercial banks in Indonesia in 2017-2019 which includes Third Party Funds (DPK), Capital Adequacy Ratio (CAR), Non Performing Loans (NPL), inflation and BI rate. Sampling in this studywas determined using purposive sampling technique. The population in this study were 44 commercial banks listed on the Indonesia Stock Exchange (BEI) from 2017-2019. This study uses multiple linear regression analysis with the SPSS application.

4. RESULT AND DISCUSSION

4.1 Result

This study used 132 samples from 44 commercial banks listed on the Indonesia Stock Exchange. Before testing the hypothesis, first the classical assumption test is carried out, namely the normality test, multicollinearity, heteroscedasticity, and autocorrelation. After all these tests meet the requirements, then multiple linear regression analysis is carried out. Following are the results of multiple linear regression analysis:

Table.1

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.097	0.218		0.446	0.657
	DPK	1,012	0.006	0.983	160,801	0,000
	CAR	-0,433	0.079	-0.033	-5,478	0,000
	NPL	-1,194	0.510	-0.014	-2,340	0.021
	Inflation	-7,261	3,216	-0.014	-2,258	0.026
	BI rate	-1,415	1,637	-0.005	-0,864	0.389

The Effect of Third Party Funds (TPF) on Credit Distribution

Based on the hypothesis test table, it shows that the TPF variable has a significant value of 0.000 <0.05. Furthermore, the t test criteria in the TPF variable have a t-count value of 160.801> 1.65882 t table and a regression coefficient with a positive direction of 1.012. Based on these statistical results, the variable third party funds has a positive effect on credit distribution, so that the first hypothesis is accepted. In this case, lending comes from funds collected by the public or outsiders, where the greater the funds obtained by the bank, the greater the bank's obligation to pay interest to capital owners. This the bank must allocate its funds in the form of credit or financing to take advantage.

The influence of Capital Adequacy Ratio (CAR) on lending

Based on the test results, it shows that the CAR variable has a significant value of 0.000 <0.05. Furthermore, the t test criteria in the CAR variable has a value of -5.478 <1.65882 t table and a regression coefficient with a negative direction of -0.433. Based on these statistical results, the CAR variable has a negative effect on credit distribution, so that the second hypothesis is rejected. The results of this study indicate that capital management is inefficient so that credit distribution increases along with a decrease in CAR. this was due to the average CAR value which was far above the provisions set by Bank Indonesia, namely 8%. Then this capital is used to provide credit when there is a large credit spike, or used to accommodate the risk of loss of funds caused by bank operations.

Effect of Non Performing Loans (NPL) on lending

Based on the test results, it shows that the NPL variable has a significant value of 0.021 <0.05. Furthermore, the t test criteria in the NPL variable have a value of -2.340 <1.65882 t table and a regression coefficient with a negative direction of -1.194. Based on these statistical results, the NPL variable has a negative effect on credit distribution, so that the third hypothesis is accepted. Thus, the higher the NPL ratio, the banks will create a large reserve for losses to overcome it, so that bank capital decreases which results in decreased lending. However, if the NPL decreases, the allowance for losses will be disbursed for credit so that lending increases.

Effect of inflation on lending

Based on the test results, it shows that the inflation variable has a significant value of 0.026 <0.05. Furthermore, the t test criteria in the inflation variable have a value of -2.258 <1.65882 t table and a regression coefficient with a negative direction of -7.261. Based on these statistical results, the inflation variable has a negative effect on credit distribution, so that the fourth hypothesis is accepted. Based on the research results, inflation data for 2017 - 2019 are still classified as safe and can increase national income and make people more enthusiastic about saving or investing. So as to result in more funds obtained by banks, credit distribution will increase. Conversely, if there is a condition of uncontrolled inflation (hyperinflation) or it can be said that it is severe

The effect of the BI rate on lending

Based on the test results, it shows that the BI rate variable has a significant value of 0.389> 0.05, the t-count value is -0.864 <1.65882 t table and the regression coefficient value is -1.415. Based on these statistical results, the BI rate variable has no effect on credit distribution, so the fourth hypothesis is rejected. The research results show that the BI rate does not affect the size of credit distribution. This is related to the inflation rate, because in determining the BI rate one of the ways is by looking at the inflation rate in Indonesia in general. Judging from the inflation rate in Indonesia is classified as stable, so the BI rate will not have an impact on lending.

5. CONCLUSION, IMPLICATIONS, LIMITATIONS, AND SUGGESTION FOR FUTURE RESEARCH

Based on the results of the tests that have been carried out, the following conclusions can be drawn:

Third Party Funds (TPF) have a positive effect on lending

1. *Capital Adequecy Ratio* (CAR) has a negative effect on lending
2. *Non Performing Loan* has a negative effect on lending
3. Inflation has a negative effect on lending
4. The bi rate has no effect on lending

This study has several limitations, namely This study only uses data from 2017-2019 so the data obtained by researchers is still limited. From the research results and conclusions that have been stated previously, there are suggestions for further research, namely further research is expected to use other broader variables that can affect credit distribution such as

Operating Costs per Operating Income (BOPO), Return On Asset (ROA), and Loan to Deposits Ratio. As well as considering adding external factors that affect lending. Among others, the rupiah exchange rate and Bank Indonesia Certificates

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