

Analysis of Determinants of Working Capital Credit Growth at Bank Persero in Indonesia



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ABSTRACT: The purpose of this study is to analyze the effect of Third Party Funds (DPK), *Non-Performing Loans* (NPL), inflation, and *BI Rate* on the growth of working capital loans at Bank Persero in Indonesia. The analysis was conducted on four Persero Banks in Indonesia, namely Bank Rakyat Indonesia, Bank Mandiri, Bank Negara Indonesia, and Bank Tabungan Negara during the period January 2014 to December 2020. The analysis technique used is time-series data regression with the *Error Correction Model* (ECM) approach. The results showed that partially, deposits had a significant positive effect, while NPLs had a significant negative effect on the growth of working capital loans at Bank Persero, both in the long and short term. In addition, the inflation rate does not have a significant effect on the growth of working capital loans at Bank Persero, both in the long and short term. The *BI Rate* does not have a significant effect in the long term, but has a significant positive effect in the short term on the growth of working capital loans at Bank Persero. Simultaneously, deposits, NPLs, inflation, and the *BI Rate* have a significant influence on the growth of working capital loans at Bank Persero in Indonesia.

KEYWORDS: DPK, NPL, inflation, *BI Rate*, working capital credit, Bank Persero

INTRODUCTION

As a developing country, Indonesia faces challenges in keeping the wheels of the economy moving. Economic growth is measured through Gross Domestic Product (GDP), where one of the business fields is financial services and insurance. Therefore, the financial sector is one of the important sectors in a country's economy. Until now, the financial sector in Indonesia is still dominated by the banking industry. This can be seen from the large proportion of banking assets which reached 77.73% of overall financial sector assets in May 2021. (Bank Indonesia, 2021)

One of the bank's activities in the scope of distributing funds to the public is providing credit. Based on data from the Indonesian Financial System Statistics (SSKI), lending dominated bank disbursement activities at 60.97% at the end of 2020, the rest was carried out by placing funds in Bank Indonesia, placing funds in other banks, purchasing securities, and disbursing other funds. As of December 2020, the amount of national bank credit disbursed has reached more than IDR 5,500 trillion. In more detail, the proportion of credit disbursement in Indonesia is dominated by productive loans in the form of investment loans and working capital loans amounting to 71.77% and the remaining 28.23% are consumption loans. If examined more deeply, working capital loans have a higher proportion of 44.98% compared to investment loans which are only 26.79%. This means that almost half of all national banking loans are channeled in the form of working capital loans. (Bank Indonesia, 2021)(Financial Services Authority, 2021)

The large proportion of working capital loans in national bank lending and seeing growth and its impact on the economy both micro and macro, is an interesting phenomenon to be examined further. According to Inayah, Kirya, & Suwendra (2014), working capital has a positive and significant influence on the net income of small and medium enterprises. In terms of macroeconomics, the distribution of working capital loans and investment loans has a positive and significant influence on economic growth in Indonesia.(Nurjannah & Nurhayati, 2017)

In practice, some factors affect bank lending both internally and externally from the company. Every credit given cannot be separated from various risks that can threaten the health of the bank. One of the internal banking factors that affect credit distribution is the availability of funds that can be channeled. Apart from the bank itself or from other banks, a relatively easier source of funds that can be collected by banks funds from the public (Riyadi, Iqbal, & Lauren, 2014)(Kasmir, 2014: 59). This source of funds from the community is commonly referred to as Third Party Funds (DPK). Another internal factor that is thought to affect bank lending is the level of non-performing loans (NPL). The results of Warsa & Mustanda's research (2016) stated that high NPLs

Analysis of Determinants of Working Capital Credit Growth at Bank Persero in Indonesia

resulted in losses to banks due to the rate of return on bad loans. NPL has a negative and significant effect on the distribution of credit. The number of non-performing loans causes little funds that can be channeled to make loans in the future. The higher the NPL, the greater the credit risk borne by the bank, and the higher the NPL will reduce the amount of credit disbursed (Adha & Riwayati: 2019).

Apart from internal factors, there are external factors that can affect bank lending, such as the inflation rate and *BI Rate*. In the long run, inflation causes Bank Indonesia to tighten monetary and monetary operations, thereby reducing the proportion of funds channeled to working capital loans. After inflation, there is the (Widyawati & Wahyudi, 2016) *BI Rate* or currently known as the *BI-7 Day Reverse Repo Rate (BI7DRR)*, a new benchmark interest rate that has been implemented by Bank Indonesia since August 19, 2016. (Bank Indonesia, 2021) Putra & Rustariyuni (2015) found that the *BI Rate* is one of the variables that significantly positively affect the distribution of working capital loans. This finding is different from Rinofah's (2015) research which states that the *BI Rate* does not have a significant effect on credit growth.

Seeing the important role of the banking industry in the national economy through lending, this research is considered necessary to deepen the factors that affect bank lending in Indonesia. This research was conducted by measuring the effect of deposits, NPLs, inflation rate, and *BI Rate* on the growth of working capital lending in Indonesia. This research focuses on the distribution of working capital loans carried out by Bank Persero in Indonesia in the period from January 2014 to December 2020. Although it only consists of four banks, Bank Persero holds a fairly large proportion of public deposits at 43.11%, only slightly below public deposits at National Private Banks of 45.25%. In addition, Bank Persero controlled bank lending with a total credit value of more than IDR 2,456 trillion at the end of 2020 or 44.27% of total loans to commercial banks, higher than loans to National Private Banks at 43.55%. (Financial Services Authority, 2021)

The study was conducted using a multiple linear regression method with *Error Correction Model (ECM)* approach. According to Widyawati & Wahyudi (2016), the ECM method is used because it can analyze short-term and long-term economic phenomena and examine whether or not empirical models are consistent with economic theory. In addition, the use of the ECM method in this study is based on research data in the form of *time series* which are often not stationary. If the data is not stationary, a false regression will be obtained (*spurious*) so that an autocorrelation phenomenon arises and cannot generalize the regression results at different times (Basuki & Prawoto, 2016: 190).

LITERATURE REVIEW

a. Bank Persero

Bank Persero in Indonesia currently consists of 4 (four) banks, namely Bank Rakyat Indonesia (BRI), Bank Mandiri, Bank Negara Indonesia (BNI), and Bank Tabungan Negara (BTN). At the end of the 2020 period, Bank Persero held a proportion of public deposits of 43.11%, only slightly below public deposits at National Private Banks of 45.25% (Financial Services Authority, 2021). Apart from the number of deposits, according to the Indonesian Banking Statistics published by the Financial Services Authority, the Bank Persero group holds the largest proportion of total credit disbursements nationally. From 2014 to 2020, the proportion of total loans by Bank Persero continued to increase. As of the end of December 2020, Bank Persero's total credit position was more than IDR 2,456 trillion or 44.27% of total commercial bank loans.

b. Working Capital Credit

Working capital credits are used to increase production in company operations (Kasmir, 2014: 91). The period given for working capital loans is generally short-term or not more than 1 (one) year. An example of the purpose of this credit is to buy raw materials, pay employee salaries, and other working capital related to company production (Hasan, 2014: 27).

c. Third-Party Funds (DPK)

Based on Law of the Republic of Indonesia Number 10 of 1998 concerning Amendments to Law Number 7 of 1992 concerning Banking, deposits or so-called deposits are funds entrusted by the public to banks based on fund storage agreements in the form of current accounts, time deposits, certificates of deposit, savings and or other forms likened to it. The search for this source of funds is relatively the easiest compared to other sources, but this source of funds is more expensive than its funds (Kasmir, 2014: 59).

d. Non-Performing Loan (NPL)

Non-Performing Loan (NPL) or non-performing loans is a ratio that compares total non-performing loans to total loans disbursed in percentage form (Barus & Erick, 2016). According to Darmawi (2012: 126), non-performing loans (NPL) include loans where borrowers cannot carry out the terms of the credit agreement they have signed, which is due to various things that need to be reviewed or changes to the agreement.

Analysis of Determinants of Working Capital Credit Growth at Bank Persero in Indonesia

e. Inflation

According to Natsir (2014), inflation is the tendency to increase the price of goods and services continuously. Bank Indonesia defines inflation as a general and continuous increase in the price of goods and services over a certain period. Price increases in one or two goods cannot be called inflation unless the increase is widespread or results in price increases in other goods (Bank Indonesia, 2021). Inflation is a symptom of price increases that take place simultaneously, if it occurs at a low level it will not endanger economic conditions, but if it occurs at a high level it will be very detrimental to the economy because people's purchasing power will decline sharply (Sugiyanto & Romadhina, 2020: 71).

f. BI Rate

The BI Rate is an interest rate policy set by Bank of Indonesia and disseminated to the public. The BI Rate is set with the aim of maintaining economic stability and controlling inflation. Since 19th August 2016, Bank of Indonesia has strengthened the monetary operations framework by implementing a new benchmark interest rate, the BI-7-Day Reverse Repo Rate (BI7DRR), as a replacement for the BI Rate (www.bi.go.id, 2021).

Hypothesis Development

Productive assets are financed by banks using third-party funds (DPK) and loans. 4 types of productive assets or assets produce (*earning assets*), namely credit given, securities, placement of funds in other banks, and participation (Abdullah & Wahjusaputri, 2018: 97). Bank credit growth was relatively sluggish due to banks' reluctance to expand credit due to the poor state of banks' productive assets and many leading to non-performing or bad loans, in addition to provisions in the context of *prudent banking* implementation (Abdullah & Wahjusaputri, 2018: 174). In addition, high inflation and general macroeconomic conditions that are not good occur along with banking conditions that cannot mobilize funds properly (Sumartik, 2018: 30).

The role of the Central Bank as a source of loans or a place to discount securities can be used as a way to influence the money supply and the level of economic activity (Abdullah & Wahjusaputri, 2018: 74). In conditions where economic activity is still below the expected and achievable level of activity, the Central Bank can increase its activities by lowering the discount rate (BI Rate) so that the interest costs that commercial banks must pay to borrow from the Central Bank become cheaper. This will encourage the number of loans to increase.

Based on this description, the following hypotheses were formed: (1) the effect of deposits on the growth of working capital loans (**H₁**); (2) the effect of NPLs on working capital credit growth (**H₂**); (3) the effect of inflation on working capital credit growth (**H₃**); (4) the effect of the BI rate on the growth of working capital loans (**H₄**); and (5) the effect of deposits, NPLs, inflation and the BI rate on the growth of working capital loans (**H₅**). Here's the frame of mind:

RESEARCH METHODS

The type of research used is associative research. The research approach used in this study is quantitative. Variabel bound or dependent variable in this study is the amount of Working Capital Loan disbursement at Bank Persero in Indonesia for the period January 2014 to December 2020. Meanwhile, the independent variables are Third Party Funds (DPK), *Non-Performing Loans* (NPL), inflation rate, and BI Rate rate.

The sampling technique used in this study is *non-probability* sampling with *purposive sampling techniques*. The sample in this study is a government-owned commercial bank (Bank Persero) recorded in the Indonesian Banking Statistics (SPI) published by the Financial Services Authority during the period 2014 to 2020 as many as 4 (four) banks, namely Bank Rakyat Indonesia, Bank Mandiri, Bank Negara Indonesia, and Bank Tabungan Negara.

The data sources in this study are secondary data sources sourced from the Indonesian Banking Statistics Report (SPI) issued by the Financial Services Authority every month and the Indonesian Financial System Statistics Report (SSKI) issued by Bank of Indonesia on a monthly basis. Data processing and analysis in this study uses computerized methods through the Econometric Views (Eviews) program.

Table 1. Operationalization of Variables

No.	Variable Definition	Indicator	Scale
1	Working Capital Credit (Y) Credit used as business capital in the short term	The amount of credit disbursement value in working at Bank Persero per month	Ratio

Analysis of Determinants of Working Capital Credit Growth at Bank Persero in Indonesia

2	Third Party Funds (X_1) The largest source of funds most relied on by banks, which will later be redistributed in the form of credit to the community	Total Deposit at the Bank Persero per month	Ratio
3	Non-Performing Loan (X_2) Credit where the borrower cannot carry out the terms of the credit agreement he has signed, which is due to various reasons so that it needs to be reviewed again or changes to the agreement	The number of non-performing loans at Bank Persero per month	Ratio
4	Inflation (X_3) A general and continuous increase in the price of goods and services within a certain period of time	Inflation rate per month	Ratio
5	BI Rate (X_4) Interest rate policy set by Bank of Indonesia	Monthly BI Rate	Ratio

Source: Author (2022)

RESULTS OF DISCUSSION

Descriptive Statistics

The following are presented the results of descriptive analysis of research variables.

Table 2. Descriptive Statistics

Value	KMK (Y) (Billion Rp)	DPK (X_1) (Billion Rp)	NPL (X_2) (Billion Rp)	Inflation (X_3) (%)	BI Rate (X_4) (%)
Average	815.471,97	2.015.225,34	29.733,93	4,06	5,74
Middle Value	818.414,32	1.990.042,73	31.859,07	3,41	5,38
Maximum	1.067.402,98	2.890.488,28	51.322,59	8,36	7,75
Minimal	555.089,50	1.290.655,58	14.314,74	1,32	3,75
Std. Deviation	163.117,19	442.153,9	9.514,66	1,76	1,32

Source: Data Processed (2022)

From Table 2, it is known that the average amount of working capital loans disbursed to Bank Persero from 2014 to 2020 was Rp815,471.97 billion and the middle value was Rp818,414.32 billion. The lowest value of working capital loans disbursed to Bank Persero amounted to Rp555,089.50 billion in February 2014 and the highest value of Rp1,067,402.98 billion occurred in December 2020 with a standard deviation of Rp163,117.19 billion.

The average amount of Third Party Funds (DPK) collected at Bank Persero from 2014 to 2020 was Rp2,015,225.34 billion and the middle value was Rp1,990,042.73 billion. The lowest value of deposits at Bank Persero of Rp1,290,655.58 billion was recorded in January 2014 and the highest value of Rp2,890,488.28 billion was recorded in September 2020 with a standard deviation of Rp442,153.9 billion.

The average NPL value at Bank Persero from 2014 to 2020 was shown at Rp29,733.93 billion and the middle value was Rp31,859.07 billion. The lowest NPL amount at Bank Persero of Rp14,314.74 billion was recorded in December 2014 and the highest value of Rp51,322.59 billion was recorded in December 2020.

The inflation rate in Indonesia in the period 2014 to 2020 was at an average value of 4.06% with a median value of 3.41%. The inflation rate has touched the lowest number of 1.32% in August 2020, while the highest value of 8.36% was recorded in December 2014 with a standard deviation of 1.76%.

Table 2 shows that the average BI Rate from 2014 to 2020 was 5.74% and the median value was 5.38%. Bank of Indonesia recorded the lowest BI Rate in November and December 2020 at 3.75%. Meanwhile, the highest BI Rate of 7.75% was recorded set by Bank of Indonesia in November – December 2014 and January 2015 before the implementation of the new interest rate policy, namely the BI-7-Day Reverse Repo Rate (BI7DRR).

Analysis of Determinants of Working Capital Credit Growth at Bank Persero in Indonesia

Error Correction Model (ECM)

The first test carried out to form the ECM Model was the stationary test or unit root test on all research variables. The formation of the ECM model is followed by testing the degree of integration if there are variables that are not stationary at the level *level*. After all stationary variables, a cointegration test is carried out by forming residuals of linear regression of independent variables to dependent variables in OLS. The residual must be stationary at the level level to be able to say that the variable has cointegration (Basuki & Prawoto, 2016: 195). OLS regression results are presented in Table 3 below.

Table 3. OLS Equation Regression Results

Dependent Variable: KMK

Method: Least Squares

<i>Variable</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-Statistic</i>	<i>Prob.</i>
DPK	0,430414	0,024525	17,55025	0,0000
NPL	-5,412050	1,507691	-3,589629	0,0006
INF	-5245,268	3637,526	-1,441988	0,1533
CHOOSE	-10831,61	5818,339	-1,861632	0,0664
C	192482,0	5186273	3,711374	0,0004
<i>R-squared</i>	0,970734			
<i>Adjusted R-squared</i>	0,969252			
<i>F-statistic</i>	655,0880			
<i>Prob(F-statistic)</i>	0,000000			

Source: Data Processed (2022)

In the stationary test and the degree of cointegration test, it was concluded that all variables were stationary at the level of *2nd difference*. Then, the OLS equation for the independent variable and the dependent variable in this study has also shown a long-term relationship through cointegration tests. Thus, ECM models can be formed to obtain short-term equations. The results of ECM regression are shown in Table 4 below.

Table 4. ECM Model Regression Results

Dependent Variable: D(KMK,2)

Method: Least Squares

<i>Variable</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-Statistic</i>	<i>Prob.</i>
D(DPK,2)	0,354831	0,026821	13,22975	0,0000
D(NPL,2)	-3,900841	1,472588	-2,648970	0,0098
D(INF,2)	-1929,533	2696,898	-0,715464	0,4765
D(DIAL,2)	15962,00	7844,979	2,034677	0,0454
RES(-1)	-0,251227	0,065700	-3,823834	0,0003
C	289,0958	1790,110	0,161496	0,8721
<i>R-squared</i>	0,783053			
<i>Adjusted R-squared</i>	0,768780			
<i>F-statistic</i>	54,86324			
<i>Prob(F-statistic)</i>	0,000000			

Source: Data Processed (2022)

Classical Assumption Test

From the results of the classical assumption test, it was concluded that the data were normally distributed, there were no symptoms of heteroscedasticity, and there was no multilinearitas. Meanwhile, from the autocorrelation test, it was found that there were symptoms of autocorrelation, because based on the Obs * R-squared value: 14.80376 with p value or Prob. Chi-

Analysis of Determinants of Working Capital Credit Growth at Bank Persero in Indonesia

Square(2) of 0.0006 < 0.05. To overcome the autocorrelation problem, the author uses a *robust* equation or immune to autocorrelation violations, namely the Newey West Standard Error coefficient or commonly called Heteroscedasticity and Autocorrelation Consistent (HAC) so that the *standard error* value is corrected to be unbiased (Nurlaila, Susilawati, & Nilakusmawati, 2017). ECM models that use robust equations or are immune to autocorrelation violations are shown in Table 5 below.

Table 5. Short Term Equation with Newey West Standard Error Coefficient

Dependent Variable: D(KMK,2)

Method: Least Squares

HAC standard errors & covariance (Bartlett kernel, Newey-West fixed bandwidth = 4.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(DPK,2)	0,354831	0,032838	10,80561	0,0000
D(NPL,2)	-3,900841	1,569341	-2,485655	0,0151
D(INF,2)	-1929,533	1904,267	-1,013268	0,3141
D(DIAL,2)	15962,00	4641,358	3,439080	0,0010
RES(-1)	-0,251227	0,050758	-4,949477	0,0000
C	289,0958	1357,215	0,213007	0,8319
<i>R-squared</i>	0,783053			
<i>Adjusted R-squared</i>	0,768780			
<i>Prob(F-statistic)</i>	0,000000			

Source: Data Processed (2022)

Test the hypothesis (coefficient of determination r^2)

The *Adjusted R-Squared* value in the long-term equation is 0.9693 (Table 3). This shows that the independent variables, namely deposits, NPLs, inflation, and *BI Rate*, are able to explain the variation in working capital loans at Bank Persero by 96.93%, while the remaining 3.07% is explained by other variables that are not included in the model.

Testing with the ECM model yielded an *Adjusted R-Squared* value of 0.7688 (Table 5). This implies that in the short term, a set of independent variables is able to explain the working capital credit variable of 76.88%, while the remaining 23.22% is explained by other factors that are not included in the model. The *Adjusted R-Squared* value in the ECM model decreases compared to the OLS equation. This indicates that the ECM model is able to overcome one indication of spurious regression, namely a very high *R-Squared* value (close to 100%).

Hypothesis Test (t-Test)

The following Table 6 shows the results of the t-test analysis on the long number j regression equation (OLS) from Table 3. The variables of Third Party Funds (DPK) and *Non-Performing Loans* (NPL) partially had a significant effect on the distribution of working capital loans to Bank Persero in Indonesia during the study period. Meanwhile, inflation variables and the *BI Rate* partially did not show a significant influence.

Table 6. Analysis of OLS Regression t-Test Results

Variable	t-Statistic	Probability	Parameter	Conclusion
DPK	0,430414	0,0000	< 0,05	Significant effect
NPL	-5,412050	0,0006	< 0,05	Significant effect
INF	-5.245,268	0,1533	> 0,05	No significant effect
<i>BI Rate</i>	-10.831,61	0,0664	> 0,05	No significant effect

Source: Data Processed (2022)

Interpretation of Results

The study used regression analysis with the *Ordinary Least Squares* (OLS) method to produce long-term equations and *Error Correction Model* (ECM) to produce short-term equations. The regression equation for the long term is as follows:

$$KMK = 0,4304DPK - 5,4120NPL - 5.245,2677INF - 10.831,6083BIRATE + 192.482,9984$$

Analysis of Determinants of Working Capital Credit Growth at Bank Persero in Indonesia

The form of the equation resulting from regression analysis with the ECM method in the form of a short-term equation is as follows:

$$D(KMK,2) = 0,3548D(DPK,2) - 3,9008D(NPL,2) - 1.929,533D(INF,2) + 15.962D(BIRATE,2) - 0.2512RES(-1) + 289.0958$$

The following is an explanation of the influence of each variable based on the results of research that has been done.

The Effect of Deposits on Working Capital Loans

From the results of regression analysis using the OLS method in Table 6, it was found that the regression coefficient of the DPK variable was 0.4304 with a probability of 0.0000. Because the value of the positive coefficient and probability is below the significance level of 5%, in the long run it can be interpreted that deposits have a significant positive effect on working capital loans at Bank Persero. The increase in deposits by 1 unit will be followed by an increase in working capital loans by 0.4304 units. Meanwhile, based on the results of regression analysis using the ECM method in Table 7, it was found that the regression coefficient of the DPK variable was 0.3548 with a probability of 0.0000. This implies that in the short term, deposits also have a significant positive effect on working capital loans at Bank Persero. In the short term, an increase in deposits of 1 unit will increase working capital loans by 0.3548 units.

This finding shows that changes in the value of deposits have a significant and positive influence on working capital loans at Bank Persero. This is in line with the function of banks as financial *intermediaries* and the theory that deposits are the largest source of funds that banks rely on in lending. The Financial Services Authority (2021) also noted that 89.97% of the funds raised by Commercial Banks at the end of 2020 were deposits. (Sari & Abundanti, 2016)

The Effect of NPLs on Working Capital Loans

From the results of regression analysis with the OLS method in Table 6, it was found that the regression coefficient of the NPL variable was -5.4120 with a probability of 0.0006. Because the value of the coefficient is negative and the probability is below the significance level of 5%, in the long run it can be interpreted that NPLs have a significant negative effect on working capital loans at Bank Persero. An increase in NPLs of 1 unit will be followed by a decrease in working capital loans by 5.4120 units. Meanwhile, based on the results of regression analysis using the ECM method in Table 7, it was found that the regression coefficient of the NPL variable was -3.9008 with a probability of 0.0151. This shows that in the short term, NPLs have a significant negative effect on working capital loans at Bank Persero. The increase in NPLs by 1 unit will reduce the distribution of working capital loans to Bank Persero by 3.9008 units.

With a negative coefficient value and probability below the significance level, this indicates that changes in NPL values during the study period affected working capital lending negatively and significantly. High NPLs will cause a decrease in the amount of credit disbursed, and vice versa.

NPL is a non-performing credit score that needs more attention by banks. Based on Bank of Indonesia Regulation Number 15/2/PBI/2013 concerning Status Determination and Follow-up Supervision of Conventional Commercial Banks, banks are considered to have potential difficulties that endanger their business continuity if the net NPL ratio exceeds 5% (Bank of Indonesia, 2013). The higher the NPL level, the greater the credit risk borne by the bank. Therefore, an increased NPL ratio will make banks more cautious or selective in lending. This is due to the potential for uncollectible credit.

High NPLs will also increase the risk premium which has an impact on high lending rates. Interest rates that are too high will reduce public demand for credit. In addition, high NPLs also resulted in the emergence of larger reserves, so that in the end bank capital was eroded. On the other hand, the amount of capital greatly affects the amount of credit expansion. Thus, the high NPL value is one of the obstacles to bank credit distribution.

Effects of Inflation on Working Capital Credit

From the results of regression analysis using the OLS method in Table 6, it was found that the regression coefficient of the inflation variable was -5,245.268 with a probability of 0.1533. Although the value of the coefficient is negative, the probability value of variable inflation is above the significance level of 5%. This means that in the long run inflation has a negative but not significant effect on working capital loans at Bank Persero. Based on the results of regression analysis using the ECM method in Table 7, the regression coefficient of the inflation variable was found to be -1,929.533 with a probability of 0.3141. This shows that in the short term, inflation also has a negative but not significant effect on working capital loans at Bank Persero.

Consistent increase in working capital credit disbursement was not affected by the inflation rate due to the inflation rate that tends to be stable with a controlled and still low downward trend. In the short term, controlled and relatively low inflation has not encouraged the central bank to adopt policies related to bank lending. In addition, the decline in inflation in the long term during the research period (2014-2020) also did not have a significant effect on the distribution of working capital loans which tended to continue to increase. This proves that the bank applies one of the 5C principles, namely *conditions* in distributing funds

Analysis of Determinants of Working Capital Credit Growth at Bank Persero in Indonesia

to the public. With the principle of *condition*, banks have considered stable economic conditions so that the funds channeled can continue to grow in the long term.

Effect of BI Rate on Working Capital Credit

From the results of regression analysis using the OLS method in Table 6, it was found that the regression coefficient of the BI Rate variable was -10,831.61 with a probability of 0.0664. At the significance level of 5%, it can be concluded that in the long run the BI Rate does not have a significant effect on working capital loans at Bank Persero. Based on the results of regression analysis using the ECM method in Table 7, it was found that the regression coefficient of the BI Rate variable was 15,962.00 with a probability of 0.0010. Contrary to the long-term equation, in the short term, the BI Rate has a significant positive effect on working capital loans at Bank Persero with a significance level of 5%.

The BI Rate is the policy rate that describes the monetary policy stance set by Bank of Indonesia. Ideally, an increase in the BI Rate would be followed by an increase in bank interest rates which could then reduce demand and bank lending. However, changes in bank interest rates do not only refer to the BI Rate. From external factors, the level of GDP, inflation, and money supply have an influence on lending rates in the short term. (Laksono, 2017)

The positive relationship between the BI Rate and working capital loans shows that in the short term, an increase in the BI Rate does not necessarily reduce demand for credit or vice versa. This is because when the BI Rate changes, banks do not immediately respond to the policy. There is a *time lag* for banks to adjust their interest rates. Banks still use old interest rates as a reference for interest on loans and deposits, especially for ongoing contracts. Kemu & Ika (2016), stated that the BI Rate policy transmission is a long process before reaching the final target desired by Bank of Indonesia.

CONCLUSION

This study aims to analyze the effect of Third Party Funds (DPK), *Non-Performing Loans* (NPL), inflation, and BI Rate on the growth of working capital lending to Bank Persero in Indonesia. Based on the results of the analysis that has been conducted, it can be concluded that Third Party Funds (DPK) have a significant positive influence on the growth of working capital loans at Bank Persero in Indonesia, both in the long and short term. *Non-Performing Loan* (NPL) has a significant negative influence on the growth of working capital loans at Bank Persero in Indonesia, both in the long and short term. Conversely, the inflation rate does not have a significant effect on the growth of working capital loans at Bank Persero in Indonesia, both in the long and short term. Meanwhile, the BI Rate has an insignificant influence on working capital loans to Bank Persero in Indonesia in the long term, but has a significant and positive influence in the short term.

Simultaneously, the variables of deposits, NPLs, inflation, and BI Rate have a significant influence on the growth of working capital loans at Bank Persero in Indonesia. In the long term, deposits, NPLs, inflation, and the BI Rate are able to explain the variation in working capital loans of 96.9 to 3% while in the short term it is 76.88%.

The recommendation for future studies to use a longer and more current observation period, for example starting from 15 years back (2008) to 2022. During this period, researchers can enrich the results of the analysis with the turmoil in the economy caused by the financial crisis and the COVID-19 pandemic. The author also recommends that researchers add other variables such as *the level of Capital Adequacy Ratio* (CAR), the rate of *Return on Assets* (ROA), and the value of the Rupiah exchange rate against the US Dollar. The addition of these variables can deepen the results of the analysis of factors affecting bank lending, both internal and external banking factors.

In this study, it was found that the behavior of credit offerings at Bank Persero was strongly influenced by internal indicators, namely deposits and NPLs. Therefore, banks need to increase public trust to place their funds in banks in several ways such as product differentiation, deepening existing products, and innovation in the field of information technology. Thus, it is expected that the value of deposits will continue to grow which will then be followed by growth in lending. On the other hand, the negative influence of NPLs on credit needs to be anticipated by banks so that they are not counterproductive to efforts to distribute funds to the public. Banks can implement policies to control NPLs such as deeper analysis of prospective debtors, monitoring of the use of credit funds that have been given, and effective settlement of bad loans.

REFERENCES

- 1) Abdullah, T., & Wahjusaputri, S. (2018). *Banks and Financial Institutions*. Jakarta: Partner Wacana Media.
- 2) Adha, S.N. & Riwayati, H.E. (2019). Analysis of Factors Affecting Banking Lending *INOBS*, Vol.03, No. 01, Dec, 106-117.
- 3) Bank of Indonesia. (2021, June 13). *BI 7-Day Reverse Repo Rate (BI7DRR)*. Retrieved from Bank of Indonesia: <https://www.bi.go.id/id/fungsi-utama/monetary/bi-7day-rr/default.aspx>

Analysis of Determinants of Working Capital Credit Growth at Bank Persero in Indonesia

- 4) Bank of Indonesia. (2021, October 4). *Inflation*. Taken back from Bank of Indonesia: www.bi.go.id/id/fungsi-utama/moneter/inflasi
- 5) Bank of Indonesia. (2021). *Indonesian Financial System Statistics*. Jakarta: Bank Indonesia.
- 6) Barus, A., & Erick. (2016). Analysis of Factors Affecting Non-Performing Loans at Commercial Banks in Indonesia. *Jurnal Wira Ekonomi Mkroskil Vol. 6 No. 02*, 113-122.
- 7) Basuki, A. T., & Prawoto, N. (2016). *Regression Analysis in Economic and Business Research*. Depok: PT Raja Grafindo Persada.
- 8) Darmawi, H. (2012). *Banking Management*. Padang: Bumi Aksara.
- 9) Hasan, N. I. (2014). *Introduction to Banking*. Jakarta: References.
- 10) Inayah, N., Kirya, I., & Suwendra, I. (2014). The Effect of Working Capital Credit on the Net Income of Small and Medium Enterprises (SMEs) in the Formal Sector. *e-Journal Bisma Universitas Pendidikan Ganesha Department of Management Vol. 2*.
- 11) Cashmere. (2014). *Banks and Other Financial Institutions*. Jakarta: King Grafindo Persada.
- 12) Kemu, S., & Ika, S. (2016). BI Rate Transmission as an Instrument to Achieve the Monetary Policy Target. *Economic & Financial Studies, Vol. 20, No. 3*, 261-284.
- 13) Laksono, R. (2017). Analysis of Factors Affecting Commercial Bank Lending Rates in Indonesia Through the Cointegration and Error Correction Model (ECM) Approach. *Proceedings of Accountant Professionalism Towards Sustainable Business Practice*, 362-375.
- 14) Natsir, M. (2014). *Monetary Economics and Central Banking*. Jakarta: Mitra Wacana Media.
- 15) Nurjannah, & Nurhayati. (2017). The Effect of Investment Loans, Working Capital Loans and Consumer Loans on Economic Growth Indonesian. *Ocean Journal of Economics and Business Vol. 8 No. 1*.
- 16) Nurlaila, Z., Susilawati, M., & Nilakusmawati, D. (2017). Application of Newey West Method in Correcting Standard Error When Heteroscedasticity and Autocorrelation Occur in Regression Analysis. *E-Journal of Mathematics Vol. 6 (1)*, 7-14
- 17) Financial Services Authority. (2021). *Indonesian Banking Statistics*. Jakarta: Financial Services Authority .
- 18) Son, I. O., & Rustariyuni, S. D. (2015). The Effect of DPK, BI Rate, and NPL on Working Capital Lending to BPR in Bali Province in 2009-2014. *E-Journal of Development Economics, Udayana University*, 451- 464.
- 19) Rinofah, R. (2015). The Effect of Macroeconomic Variables on General and MSME Credit Distribution in the Special Region of Yogyakarta. *Journal of Sociohumanities Volume 1 No 1*.
- 20) Riyadi, S., Iqbal, M., & Lauren, N. (2014). Non-performing loan management strategy of commercial banks that go public. *Journal of Management Dynamics Vol. 6 No. 1*.84-96.
- 21) Sari, N., & Abundanti, N. (2016). The Effect of Deposits, ROA, Inflation and SBI Interest Rates on Lending to Commercial Banks. *E-Journal of Management Unud, Vol. 5, No. 11*, 7156-7184.
- 22) Sugiyanto, & Romadhina, A. (2020). *Introduction to Micro and Macroeconomics*. Serang: Indonesian Education and Social Foundation (YPSIM) Banten.
- 23) Sujarweni, V. Wiratna. (2015). *Business and Economic Research Methodology*. Yogyakarta: Pustaka Baru Press .
- 24) Sumartik & Hariasih, M. (2018). *Bank Management Textbook*. Sidoarjo: UMSIDA Press.
- 25) Law of the Republic of Indonesia Number 10 of 1998 concerning Amendments to Law Number 7 of 1992 concerning Banking. (t.yr.).
- 26) Warsa, N., & Mustanda, I. (2016). The Effect of CAR, LDR, and NPL on Roa in the Banking Sector on the Indonesia Stock Exchange. *E-Journal of Management Unud, Vol. 5, No. 5*, 2842-2870.
- 27) Widyawati, S., & Wahyudi, S. T. (2016). Determinants of Banking Working Capital Credit Growth in Indonesia: Error Correction Model (ECM) Approach. *Journal of Finance and Banking Vol. 20 No. 1*, 149-156.



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