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Covid-19 and Non-Performing Loan on Peer to Peer Lending: Study in Indonesian

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Abstract— **This research was conducted with the aim of knowing and analyzing the amount of non-performing loans on online loans in Indonesia during the Covid-19 pandemic. The formulation of the problem in this study is whether covid-19 affects non-performing loans, whether inflation affects non-performing loans, and whether interest rates affect non-performing loans.This research uses quantitative research methods, secondary data sources. Secondary data is data obtained through websites, books and magazines. This research process uses multiple linear regression analysis and hypothesis testing. With covid-19 as an independent variable (X1), inflation (X2, and interest rates (X3) and non-performing loans as dependent variables (Y). The results of this study using SPSS, and testing hypotheses with a significant level (5%) showed that based on the t test, covid-18 variables, interest rates, and inflation, had a positive and significant effect on non-performing loans on online loans in Indonesia.**

Keywords—non-performinloans,covid-19,inflantion,interest rates

I. INTRODUCTION

The corona pandemic (Covid-19) has also had an impact on online loans. The Indonesian Joint Funding Fintech Association (AFPI) said that economic pressures due to the pandemic have made the 90-day loan repayment default rate (TWP) or non-performing loans of the P2P lending industry increase. The Financial Services Authority (OJK) noted that TWP above 90 days of the fintech P2P lending industry was recorded to have increased to 7.99% as of July 2020. The trend of significantly increasing TWP began to occur in March 2020. This shows a decrease in payment quality, resulting in an increase in the ratio of non-performing loans, the higher the TWP, the lower the success rate of return (TKB).

Online loans in today's era are increasingly prevalent, the offer of convenience and practicality is a special attraction for people to want to use the services of online lending companies. However, in practice the credit application process is not as easy as imagined because there are many stages that must be passed. The most likely risk is default or many customers who have received loans do not want to pay or are late in paying. So it will lead to an increase in bad debts. Although fintech has carried out a very detailed and meticulous verification process related to loan disbursement, but it opens guarantees that can reduce bad debts. Bad debts are a big problem for financial service players, including fintech lending. Fintech still gets concessions related to provisions that limit the amount of loan interest, for organizers who are not registered with the OJK.

Throughout the first semester of 2020, the accumulated value of lending from fintech lending in Indonesia continued to increase. From January, it was recorded at Rp. 88.37 trillion, while June was recorded at Rp. 113.46 trillion. Pthere is a pandemic period when fintech lending banks have a fairly high risk. This is because the COVID-19 pandemic has an impact on the world of work where many workers are affected by covid 19.

Based on data from the Ministry of Manpower and BPJS Ketenagakerjaan, there are 2.8 million workers who are directly affected by Covid-19. They consisted of 1.7 million formal workers laid off and 749.4 thousand laid off. In addition, there were 282 informal workers whose businesses were disrupted. The impact of workers who have lost their jobs and small entrepreneurs and large entrepreneurs whose business is disrupted, this will encourage the inability of debtors or borrowers to return the borrowed funds and cause bad debts.

According to Dewi (2022), non-performing loans are the provision of a credit facility containing the risk of congestion. As a result, the credit cannot be collected, resulting in losses. And has a high risk because the debtor has failed or faced problems in fulfilling predetermined obligations.Furthermore, according to Tiwu (2020), non-performing loans are a condition where customers are no longer able to pay part or all of the installments along with interest to the bank as he has agreed. Credit congestion can be done due to two things, namely: there is an element of inequality, meaning that customers deliberately intend not to pay their obligations so that the credit given is bad. The existence of an accidental element, the debtor is willing to pay his credit obligations but cannot afford it.

Based on data from the Financial Services Authority (OJK), non-performing loans (NPLs) from fintech lending registered or licensed for more than 90 days in July 2020 increased by 7.99 percent. The NPL value is the highest since January 2019. The development of bad loans that continued to increase during this period certainly influenced the risk ratio of fintech loans which shows the magnitude of the risk of non-performing loans in fintech loans. From the NPL level of fintech loans which reached up to 7.99%, it proves that non-performing loans occurred during the Covid-19 pandemic.

The risk faced in lending activities is the occurrence of non-performing loans. Credit development into a problem can be caused by various things that come from customers. External conditions and creditors. According to Iswi Hariyani (2008) ; Nursyahriana (2019), Bad debts can be caused by internal and external factors. Internal factors causing bad debts are: expansive credit policies, deviations in the implementation of credit procedures, poor faith from bank owners, administrators or employees, weak bad credit

information systems. Meanwhile, external factors causing bad debts are: failure of the u r debit business,utilization of an unhealthy banking competition climate by debtors, as well as declining economic activity and high lending rates.

According to Tiwu, (2020) and Sulton et al., (2022), the COVID-19 pandemic is an external factor beyond the debtor's ability to control, which causes difficulties for debtors to pay off credit derived from bank credit. Poor credit performance can also be caused by natural disasters such as the coronavirus outbreak. There is a close relationship between the Covid-19 pandemic and non-performing loans, according to Musta'da & Pramono (2022), the Covid-19 pandemic that occurs in almost all countries and has made it difficult for millions of people to pay loans or installments, so that non-performing loans continue to increase. Of course, this is due to the slow economic growth as well as the weakening of the ability of debtors to pay because their daily income is reduced.

The development of NPLs (Non-performing Loans) is inseparable from the various influences of domestic macroeconomic variables such as economic growth, interest rates and inflation. Economic growth can indicate the success or productivity of the community from the use of credit, if economic growth increases along with the decline in the value of NPLs, the community is able to pay off the credit taken and work productively. The interest rate set by the government, in this case Bank Indonesia, will more or less affect people's desire to take credit in the banking industry or not. Inflation is certainly one of the factors of society in making decisions to take credit or not.

From the various impacts of COVID-19 that have caused an increase in bad debts, research has been found on the effect of COVID-19 on non-performing loans, including research from Novalina

& Rusiadi, (2020) and Tiwu, (2020) The results of their second study show that the COVID-19 pandemic has a significant influence and a positive relationship to non-performing loans. Different opinions from Tinggi et al., (2022) the results of the study showed that the covid-19 pandemic had no effect on non-performing loans.

Another study conducted by Musta'da & Pramono, (2022), and Saputro et al., (2019), the results of both studies proved that inflation negatively affects non-performing loans. Opinions differ from Setya Wijaya's research, (2019) the results of his research show that inflation has a positive effect on non-performing loans. Furthermore, research from Influence & Economics, (2019) and (Setya Wijaya, (2019), the results of both studies prove that interest rates have a positive effect on non-performing loans. Another provision from Musta'da & Pramono, (2022) interest rates have no effect on non-performing loans.

Problem Formulation

- Does covid-19 affect non-performing loans?
- Does inflation affect non-performing loans?
- Does interest rates affect non-performing loans?

II. THEORITICAL FRAMEWORK

A. Intermediaton Financial Theory

According to Bikker & Boss, (2008); Ketaren & Haryanto, (2020),, explained in Intermediation Theory states that the intermediation process will carry out its function as a supervisor. If the function is performed properly, the NPL will be low, so it will ensure stability within a bank.

The use of this theory describes the relationship between consumers in needing funds and banks as fund dealers, besides that in this theory it is used to monitor the role of established banks, whether they are running well or not. The theory of financial intermediation is believed to be

able to help banks in Indonesia to carry out their duties and roles so that the economy will run and grow well so that stable conditions occur in the banking industry in Indonesia.

B. Classical Economic Theory

According to Sadono Sukirno, (2008); Musta'da & Pramono, (2022), the main cause of inflation is an increase or growth in the money supply in society. Classical economic theory states that an increase in the money supply will lead to a proportional change in the price level modifier. Prevailing inflation will affect economic activities both macro and micro, including investment activities and cause a decrease in people's purchasing power. The decline in sales that occurs will cause a decrease in the company's returns. The decrease in returns that occur can affect the ability to pay credit installments. Increasingly improper payments lead to poor or even bad credit quality.

The classical theory also explains that the higher the interest rate, the higher the people's desire to keep their funds in the bank in the sense that higher interest rates will encourage people to sacrifice or reduce consumption expenditures to increase their savings or deposits. Interest is the "price" of (the use of) loanable funds, or it can be interpreted as funds available for lending or investment funds, because according to classical theory interest is the "price" that occurs in the investment market and investment is also the purpose of the interest rate.

C. Non-Performing Loans

Non-performing loan is a condition where the customer is no longer able to pay part or all of the installments along with interest to the bank as he has promised. Non-performing loans will result in bank losses, namely losses due to non-receipt of funds that have been disbursed, as well as interest income that cannot be received. That is, the bank loses the opportunity to earn interest, which results in a complete decrease in income.

D. Inflantion

According to Rachmawati and Marwansyah (2019),, inflation is a continuous increase in prices, thereby reducing people's purchasing power because the real income level is fixed, affecting the decline in income. According to Musta'da and Pramono (2022), inflation occurs due to high demand while the supply of goods is limited so that the price will increase. If the price increases, it will have an impact on reducing people's real income so that the debtor's ability to repay loans decreases and the risk of non-performing loans becomes higher.`

E. Interest Rate

According to Kasmir, (2011); Influence and Economy (2019), interest rates can be interpreted as a return for services provided by banks based on conventional principles to customers who buy or sell their products. An increase in the interest rate will worsen the quality of the loan, the higher the cost of debt makes it more difficult for the debtor to repay the loan. Raising interest rates will increase NPL levels in banking loans.

F. Covid-19 Pandemic

The COVID-19 pandemic is a disease caused by the SARS CoV-2 virus and has symptoms similar to the common cold, which can lead to severe illness and pneumonia, causing difficulty breathing. Coronavirus causes the common cold to more severe illnesses such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV). The virus is contagious quickly and has spread to several countries, including Indonesia.

Previous Research

Previous research is a research study that has been carried out by previous researchers with the same title, topic, and variables to be used as a reference for further research. The previous research that is in line with this research is as follows:

Table 2.1

Previous Research

No	Name/Year	Heading	Result
1	Musta'da & Pramono, (2022)	Non-performing loans: analysis of non-performing loans during the Covid 19 pandemic	The results of the inflation and BI Rate research did not affect NPLs during the Covid-19 pandemic.
2	Tiwu, (2020)	The impact of the Covid-19 pandemic on the NPL of people's credit banks in Indonesia	The results of the Covid-19 pandemic research and the Bi Rate have a significant influence and a positive relationship to Non-Performing Loans (NPLs), and
			inflation has no effect on Non-Performing Loans (NPLs).
3	Agustiningtyas, (2018)	Factor Analysis - Factors Affecting Non-Performing Loans (NPL) loans to Commercial Banks in Indonesia	The results of the inflation study did not have a significant effect on Non-Performing Loans (NPLs).
4	Liviawati et al., (2022)	Analysis of the Influence of Internal and External Factors on Non-Performing Loans in Regional Development Banks	The results of the SBI interest rate study do not affect NPLs, the effect of inflation on NPLs is negative.
5	Siagian, (2020)	Factors Influencing Non-Performing Loans (NPL) in the Indonesian Banking Industry	The results of the SBI interest rate study have no effect on NPLs.

Frame of Mind

Based on previous research references and based on existing problems, hypotheses can be formulated with a frame of mind such as the followingfigure

III. METHODOLOGY

Types of Research

The research method used is associative research, which is a form of research that uses at least two. According to Sugiyono (2019), associative research is a formulation of a research problem that asks about the relationship between two or more variables. According to the type of data, meanwhile, this research is classified as quantitative research, namely research that describes the state of the company analyzed based on the analysis of the data obtained.

Research Variables

Research Variables According to Sugiyono (2019),, a research variable is an attribute or trait or value of orang, an object or activity that has certain variations set by the researcher to be studied and then drawn conclusions. This research has independent variables and dependent variables.

A. Dependent Variables
According to Sugiyono (2019), the dependent (bound) Y variable is a variable that is influenced or that is a result, due to the existence of a free variable. In this study, the dependent variable is Non-Performing Loans (**Y**)**.**

B. Independent Variables
According to Sugiyono (2019),, independent variables (free variables) are variables that affect or are the cause of changes or the emergence of dependent (bound) variables. In this study, the Idependent variables were Covid19 (X1), inflation variables (X2) and interest rate variables (X3).

Data Analysis Methods

The analytical method used in this study is a quantitative analysis method. Where, quantitative analysis is an analysis that uses numbers, statistical calculations to analyze hypotheses, and several other analytical tools. Furthermore, the data obtained is processed using SPSS software, so as to produce processed data in the form of tables, graphs, and conclusions to conclude.

Descriptive Statistics

According to Sugiyono (2018: 147) Descriptive statistics are statistics used to analyze data by describing or describing the data that has been collected as it is without intending to make conclusions that apply to the general public or generalizations. Included in descriptive statistics is the presentation of data through tables, pie charts, graphs, mean calculations, medians, modes, standard deviations, percentage calculations.

Multiple Regression Analysis

Multiple regression analysis is an analysis used to test the influence of a linear relationship between two or more independent (free) variables on a dependent (bound) variable with the aim of predicting a value of a dependent variable based on an independent variable. The independent variables used in this study are Covid-19 (X1), Inflation (X2), Interest Rates (X3), and social credit (Y)In addition, multiple linear regression tests can also be used to measure the strength of the relationship between two or more variables, thus showing the direction of the relationship between the dependent variable and the independent variable. The form of the regression model used as the basis for the form of linear functions, namely:

KB it= α + β1Cvd19 it + β2 In it +β3Tsbit++ eit

Information:

KBit = Non-Performing Loans

Cvd19it = Covid-19

Init = Inflation

Tsbit = Interest rate

$\beta 1-\beta 3$ = Regression coefficient

t = T-th period

i = I-th entity

α = Constants

e = Variables outside the model

Hypothesis Testing

Hypothesis testing is statistical testing of research that is carried out in order to obtain results from the acceptance and rejection of research hypotheses.

The Effect of Covid-19 (X1) on Non-Performing Loans (Y).

Ho = Covid-19 (X1) has no significant effect on Non-Performing Loans (Y).

Ha = Covid-19 (X1) has a significant effect on Non-Performing Loans (Y).

a. If the value of t counts > t table then Ho is rejected

   If the value of t counts < t table then Ho is accepted

b. If the sign value < 0.05 then Ho is rejected

   If the sign value > 0.05 then Ho is accepted

Effect of Inflation (X **2) on Non-Performing Loans (Y) .**

Ho = Inflation (X2) has no significant effect on Non-Performing Loans (Y).

H a= Inflation (X2) has a significant effect on Non-Performing Loans (Y).

a. If the value of t counts > t table then Ho is rejected

   If the value of t counts < t table then Ho is accepted

b. If the sign value < 0.05 then Ho is rejected

   If the sign value > 0.05 then Ho is accepted

Effect of Interest Rate (X3) on Non-Performing Loans (Y).

Ho = Interest Rate (X3) has no significant effect on Non-Performing Loans (Y).

Ha = Interest Rate (X3) has a significant effect on Non-Performing Loans (Y).

a. If the value of t counts > t table then Ho is rejected

   If the value of t counts < t table then Ho is accepted

b. If the sign value < 0.05 then Ho is rejected

   If the sign value > 0.05 then Ho is accepted

IV. ANALYSYS PLANNING

The following are the measurements of independent variables and dependent variables that will be measured in this study as follows.

Table 4.1

Measurements of Independent Variables and Dependent Variables

Variable	Measurement	Measuring Scale
Non Performing Loan (NPL)	$\dfrac{\text{Non Performing Loan (NPL)}}{\text{Loan amount}} \times 100\%$	Ratio
Covid-19	Circumstances before and during the Covid 19 pandemic.	Ratio
Inflation	$\dfrac{IHK_n - IHK_{n-1}}{IHK_{n-1}} \times 100\%$	Ratio
SBI rate	Percentage of BI rate in 2020	Ratio

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