

## THE INFLUENCE OF GDP, INFLATION, AND DEPOSIT RATES ON FDI IN INDONESIA

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### *Abstract*

*Foreign Direct Investment (FDI) plays a very important role in providing capital and overcoming the problem of limited funds owned by developing countries in carrying out the economic development process. This study aims to analyze the effect of Gross Domestic Product (GDP), inflation, and deposit rates on foreign direct investment (FDI) in Indonesia in the long and short term. The method used in this study is the Autoregressive Distributed Lag (ARDL) method with periodic secondary data (time series) from the early 1990s to 2020. The results obtained in this study indicate that there is a positive and significant effect between GDP on investment foreign direct (FDI). However, inflation shows a negative effect in the long term on foreign direct investment (FDI). Meanwhile, the deposit interest rate in the long term shows a negative effect and in the short term it shows a positive and significant effect on foreign direct investment (FDI).*

**Keywords:** Deposit Interest Rate, Foreign Direct Investment, Gross Domestic Product, Inflation

### 1. INTRODUCTION

International trade has direct and indirect association to labour, technology, the economy, and most importantly to international capital flows. The relationship between international trade and capital makes this a factor influencing international capital flows in various countries because there are countries that have a lot of capital and scarcity of capital. The more capital, the lower the return obtained. Thus, resulting in international capital flows that continue to flow from a country that has more capital to a country that lacks capital to get the highest return. This is what encourages multinational companies to invest in countries that have a scarcity of capital in the form of real assets (Permana & Rivani, 2013).

Indonesia is a developing country that adheres to an open economic system, so that the government of Indonesia in running its economy still depends on economic influences from within the country and abroad to increase and encourage economic stability. This can happen because developing the economy requires enormous funding, but Indonesia as a developing country is still experiencing economic insufficiency and there are limited funds to meet needs. Due to these limitations and very limited financial conditions, the government ultimately brings in financing from abroad, one of which is foreign direct investment (Rexsy S and Yusbar Yusuf, 2015).

Problems of economic development in developing countries will usually be more complex than in developed countries. In the process of economic development, Indonesia is going through many problems, including limited funds owned by the government or still experiencing difficulties in providing sufficient capital to carry out the process of economic development. To carry out economic development, the funds owned by the government are still unable to meet development needs, therefore the government also

uses sources of financing from abroad, one of which is foreign investment.

Investment is the beginning to provide a stimulus for production activities, or which means investment is essentially the first step of an economic development. The dynamics of an investment affect the high and low economic growth of a country and reflects how sluggish development is rife. So that in an effort to achieve a well-growing economy, every country must try to create a climate that attracts investment (Fadilah, 2017).

Economic theory interprets or defines investment as expenditures to purchase capital goods and production equipment with the aim of replacing or especially adding to capital goods in the economy that will be used to produce goods and services in the future (Sukirno, 2007). Meanwhile, foreign investment is a flow of capital originating from abroad that moves to the private sector either through foreign direct investment or indirect investment (portfolio). Foreign and domestic investment is a source of financing and driving force in carrying out the process of economic growth.

The exchange rate is a benchmark indicator for agricultural stability because it allows for a comparative measure of the prices of goods and services produced by a country. In addition, indicators of a country's macroeconomic conditions are also a consideration for investors to invest. The macroeconomic conditions of a country certainly include how the economic activities of its people, government, and also anyone involved in the economy. If macroeconomic conditions include GDP, inflation, exchange rates and SBI interest rates are considered stable, the investment climate will be considered good by investors wishing to invest in a country (Letarisky, 2014). Economic growth or in this case GDP, can be an indicator in measuring a country's foreign direct investment, the higher the GDP value, the more attractive investors will be to invest in that country. In investing, investors certainly expect to get large profits with minimal spending, so that the ability of investors to analyze the macroeconomic conditions of a country is useful for making profitable investment decisions (Septifany et al., 2015).

Astuty (2017) explain global economic uncertainties that often occur also affect the Indonesian economy significantly. Most of the structure of capital flows in Indonesia is still dominated by portfolio investment while foreign direct investment is still relatively small even though it is more sustainable in nature, this is related to the lack of improvement in the competitiveness factor in Indonesia. The development of foreign direct investment in Indonesia itself is motivated by problems related to limited funds, unstable policies, unorganized bureaucracy, low quality human resources, uncondusive labor regulations, inflation, corruption, crime and so forth (Febriana, 2014).

The dynamics of investment can affect the level of economic growth and reflect the pros and cons of a development. In an effort to grow the economy, every country including Indonesia will try to create a climate that can spur investment. There are several factors that can affect investment, namely gross domestic product, interest rates, both domestic and foreign, money supply, inflation rate, exchange rate, government spending, and deregulation policies launched by the government (Sukirno, 2007).

Based on the background above, this study aims to analyze the relationship and influence between GDP (Gross Domestic Product), Inflation, and Deposit Interest Rates on Foreign Direct Investment (FDI) in the 1990-2020 period.

## **2. LITERATURE REVIEW**

### **2.1. Foreign Direct Investment (FDI)**

Capital is an asset or something in the form of money or not money that is owned by an investor and has economic value. Meanwhile, foreign investment is an individual foreign citizen or foreign government that invests in other countries or regions. This foreign investment can take the form of foreign direct investment or foreign indirect investment (Permana & Rivani, 2013).

Foreign Direct Investment (FDI) is a real investment in the form of company establishment, factory construction, purchase of capital goods, land, raw materials and inventories where investors are directly involved in company management and control the investment. This direct investment usually begins with the establishment of a subsidiary or the purchase of majority shares of a company (Hady, 2001). Further, Hady (2001) also suggests several motives for FDI as follows:

- 1) Companies want to get more in return through better infrastructure, favorable tax rates, and better economic growth.
- 2) Have a competitive advantage through direct control by carrying out horizontal integration and vertical integration.
- 3) Diversify risks.
- 4) Utilizing incentives in the form of subsidies provided by the government and avoiding tariffs and non-tariff barriers imposed by imports.

Foreign Direct Investment (FDI) is a factor of the globalized economic system. Compared to company investments that are equity in nature, FDI is more beneficial because equity investments only last a relatively short term and can be withdrawn at any time, which will create an economy that is vulnerable to shocks (Mahadiansar et al., 2021).

### **2.2. GDP (Gross Domestic Product)**

In every economy of a country there must be indicators that are used to assess the good and bad of an ongoing economy. The indicators used must be representative in assessing the economy by knowing the total income earned by all people in an economy. The appropriate indicator for measuring an economy is GDP (Gross Domestic Product). In addition, GDP can also measure two things simultaneously, namely the total income of the economy and the total spending of a country used to buy goods or services produced from the economy (Princess & Arka, 2017).

Nominal GDP can analyze the value of goods and services at prevailing prices, while real GDP can value goods at constant prices. Real GDP can only increase if the price of a good and service also increases, whereas for nominal GDP it can increase only if the price of a good and service increases or its output increases (Mankiw, 2007).

GDP is an indicator that has a major influence on the development of direct foreign investment into the country. If GDP shows an increase, this means that it can be said that economic growth has increased or the growth of goods and services has also increased. High economic growth shows a return that will be obtained by investors in increasing their investment. In addition, an increase in the value of GDP also increases per capita income so that people's purchasing power increases, this will be followed by a lot of investment inflows from within and outside the country (Rexsy S and Yusbar Yusuf, 2015).

### **2.3. Inflation**

According to the Organization for Economic Co-operation and Development (OECD), Foreign Direct Investment (FDI) is a type of cross-border investment established by individuals within a country with the aim of forming long-term profits for a company owned by residents of another country. Inflation is a significant continuous increase in general prices over a certain period of time. Inflation that is too high causes the country's economy to become unstable, but conversely, inflation at a zero percent level is impossible to achieve. So that the policies regarding inflation established by the government are only used to reduce or dampen excessive inflation rates and keep the inflation rate still at a stable stage (Syarifudin & Mundiroh, 2020).

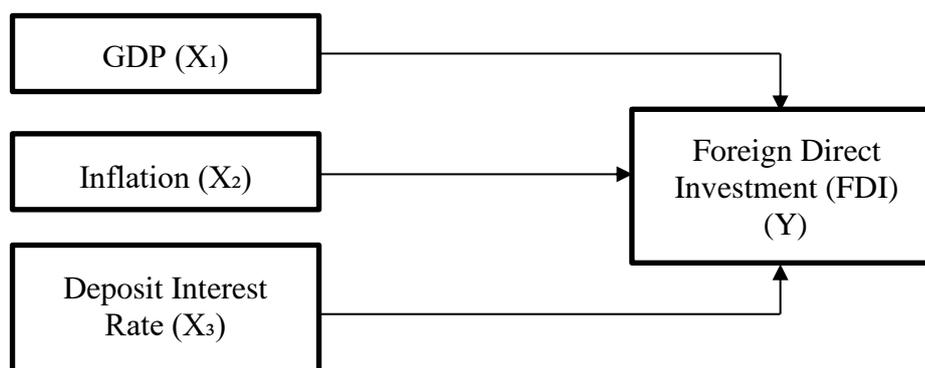
Mankiw (2007) argues that “inflation is a tendency for continuous price increases, this increase occurs widely, not only for one or two goods, resulting in price increases for other goods”. The theory that explains inflation by investment is the theory of cost-push inflation or an increase in production costs that causes a decrease in aggregate supply. This increase in production costs will also increase prices caused by the depreciation of the exchange rate, increase in prices regulated by the government, and the impact of foreign inflation on cooperating countries.

An increase in inflation is not a factor that drives Foreign Direct Investment (FDI) into a country, but some economists say that inflation can stimulate economic growth. With the assumption that the price increase will not be quickly followed by an increase in wages, the profit will increase.

### **2.4. Deposit Interest Rate**

Interest rates are the most important factor in making a decision to invest in the future as well as an important factor to be considered by investors to invest in a country. This interest rate includes the price of loanable funds, the amount of which is determined by the source of the loan and the different preferences of market economic actors. The interest rate is a determining factor in determining the amount of a country's capital flows from other countries. Interest rate policies are carried out to increase capital accumulation in various development sectors made by the government (Letarisky, 2014). An increase in interest rates will cause investment to decrease and vice versa, if interest rates decrease investment will increase because investment costs will also decrease (E. Dewi et al., 2013). According to research conducted by Ahmed E. & Gabriel (2012) interest rates have a positive influence on foreign direct investment because investors will definitely invest their capital in a country which ultimately pays a higher return on the capital that has been provided.

Deposit Interest Rate is a purchase price that must be paid by a bank to customers who have deposits at the bank. The amount of a country's interest rate can affect foreign direct investment. The amount of interest rates must be considered when making an investment because if the interest rate is higher than the rate of return on investment, the investment that has been made will suffer a loss.



Source: Processed by the Author (2022)

**Figure 1. Relationship Between Dependent and Independent Variables**

The deep macroeconomic conditions which are described by the indicators of GDP, inflation and interest rates are related to the presence of FDI. These indicators are important things that will be seen by investors in investing their capital. The higher the GDP value of a country, it will be considered to have good economic growth. Then for inflation itself, an inflation rate that is too high will risk decreasing consumption and people's purchasing power, this condition will also reduce production so that it will affect the decline in investment coming into the country.

### 3. RESEARCH METHODS

#### 3.1. Data Types and Sources

This study used a quantitative approach method with secondary data, secondary data, namely data that the researcher did not try to collect on his own. The secondary data used in this study is data sourced from the World Bank *Negara Indonesia*, in an annual time series, where the research time was the period 1990-2020. The selected data includes GDP, inflation, interest rates on deposits and foreign direct investment from 1990 to 2020.

The analytical model used in this study was the basic model of multiple linear regression equations with the Autoregressive Distributed Lag (ARDL) method. ARDL was useful in analyzing the estimated long-term relationship between GDP, inflation, and interest rates on deposits on foreign direct investment (FDI) by involving the cointegration test.

#### 3.2. Analysis Method

This study used analysis and estimation methods with the Autoregressive Distributed Lag (ARDL) approach. The ARDL method was a model that used data from the past dependent variable between the explanatory variables and the regression model which includes data at the present time with past data from the explanatory variables. ARDL had the advantage of obtaining long- and short-term estimates so that it was less likely to experience autocorrelation problems (Gujarati, 2009). Several stages of testing were as follows:

- 1) Unit Root test

The stationarity test or unit root test is the most basic test that must be carried out before estimating with the model to find out whether the data contains unit roots,

using Augmented Dickey Fuller (ADF) analysis. This test aims to determine whether the data used is stationary or not. This is very important because if non-stationary data is used, the regression variable will produce false estimates (Permana & Rivani, 2013).

2) Optimum Lag Determination

Determining the optimum lag is used to eliminate autocorrelation problems by seeing whether there is a long-term or short-term effect of one variable on other variables. Relevant tests to determine the smallest lag length can be selected based on the Schwarz Bayesian Criterion (SBC) or to determine the relevant maximum lag length can use the Akaike Information Criterion (AIC). The smaller the value in the AIC test, the better the model will be.

3) Cointegration Test

The cointegration test was carried out to determine whether there is a long-term effect between the dependent and independent variables. In addition, to analyze the causality between the variables used. The ARDL cointegration test is an F-Bound test which is carried out by estimating the equation alternately, placing each variable as an independent variable. This cointegration test can determine causality between variables.

4) ARDL Model Estimation

This study uses foreign direct investment (FDI) dependent variable data and the independent variables, namely GDP, inflation, and deposit rates.

This study uses the regression equation as follows:

$$Y_t = \beta_0 + \beta_1 GDP_t + \beta_2 INF_t + \beta_3 DIR_t + e_t$$

From the regression equation model above, the ARDL model equation can be written as follows:

$$\begin{aligned} \Delta Y_t = & \alpha_0 + \sum_{i=1}^n \alpha_{1i} \Delta Y_{t-1} + \sum_{i=1}^n \alpha_{2i} \Delta GDP_{t-1} + \sum_{i=1}^n \alpha_{3i} \Delta INF_{t-1} \\ & + \sum_{i=1}^n \alpha_{4i} \Delta DIR_{t-1} + \theta_1 Y_{t-1} + \theta_2 GDP_{t-1} + \theta_3 INF_{t-1} + \theta_4 DIR_{t-1} \\ & + e_t \end{aligned}$$

Information:

- $\Delta$  : lagging
- $\alpha_1, \alpha_2, \alpha_3, \alpha_4$  : short-term ARDL coefficient
- $\theta_1, \theta_2, \theta_3, \theta_4$  : long-term ARDL coefficient
- $e_t$  : normally distributed errors

5) Model Fit Test

The model suitability test is carried out to ensure that the model used in the study remains in accordance with the rules and regulations that apply in econometrics and the model obtained does not violate classical assumptions. The classic assumption test in the suitability of this model includes the normality test, autocorrelation test, and heteroscedasticity test. If in carrying out this classic assumption test the data passes the test, then it can be said that the output has good results.

6) Model Stability Test

Stability test is used to analyze whether the model used is stable or not. In conducting the test, it must be ensured that the model used has high validity so that the results can be trusted.

**4. RESULTS AND DISCUSSION**

**4.1. Research Results**

**4.1.1. Data Stationarity Test (Unit Root Test)**

This unit root test is the most basic test used in research to determine stationary or non-stationary data using Augmented Dickey Fuller (ADF) analysis.

**Table 1. Level Unit Root Test Results**

Variable	ADF value	MacKinnon's Critical Value			Prob.	Information
		1%	5%	10%		
FDI	-2.141372	-3.670170	-2.963972	-2.621007	0.2308	Not Stationary
GDP	-3.696332	-3.670170	-2.963972	-2.621007	0.0094	Stationary
Inflation	-4.444946	-3.670170	-2.963972	-2.621007	0.0014	Stationary
SB Deposits	-2.073360	-3.670170	-2.963972	-2.621007	0.2561	Not Stationary

Source: Eviews 10 (2022) data processing

Based on table 1, it can be seen that there are two variables that are stationary at the level, namely the GDP (Gross Domestic Product) variable and inflation. This is because these two variables have a probability value of less than 0.05. Meanwhile, for the other two variables, namely FDI (Foreign Direct Investment) and deposit rates, are not stationary at the level, it is necessary to carry out a unit root test at the first difference level. Table 2 shows that there are three variables which are stationary at the first difference level, namely FDI (Foreign Direct Investment), GDP (Gross Domestic Product), and deposit rates. However, the inflation variable is not stationary at the first difference level

**Table 2. First Difference Level Unit Root Test Results**

Variable	ADF value	MacKinnon's Critical Value			Prob.	Information
		1%	5%	10%		
FDI	-5.158686	-3.679322	-2.967767	-2.622989	0.0002	Stationary
GDP	-3.637429	-3.711457	-2.981038	-2.629906	0.0119	Stationary
Inflation	-2.562056	-3.752946	-2.998064	-2.638752	0.1150	Not Stationary
SB Deposits	-6.011298	-3.689194	-2.971853	-2.625121	0.0000	Stationary

Source: Eviews 10 (2022) data processing

**4.1.2. Lag Length Determination**

Determining the length of this lag is used to function to determine how large the number of lags will be used in a study because determining the optimum amount is needed to obtain better research results. Widarjono (2018) "the length of the lag value of an optimum lag is chosen based on the Akaike Information Creation (AIC) criteria because the AIC lag model has the smallest value when compared to Schwarz Bayesian Cretion

(SBC) and Hannan-Quin Information Creation (HQC)”.

**Table 3. Lag Length Results**

lag	LogL	LR	FPE	AIC	SC	HQ
0	-317.7321	NA	50869.82	22.18842	22.37702	22.24749
1	-270.1847	78.69918*	5855.564*	20.01274	20.95570*	20.30806*
2	-253.3815	23.17680	5946133	19.95735*	21.65468	20.48893

Source: Eviews 10 (2022) data processing

The selected lag length is the one with the smallest or lowest AIC value, the lower the AIC value, the better. In table 3 the determination of the length of the lag above shows that the optimum lg that can be used in this study is Lag 2.

#### 4.1.3. F-Bound Test Cointegration Test

The cointegration test is a test conducted to analyze the relationship between the dependent and independent variables and to find out whether there is balance and long-term stability between these relationships. The results of the F-Bound Test can be seen from the F-Statistic value, if the F-Statistic value is greater than the upper bounds value, then the null hypothesis which states that there is no long run association is rejected.

**Table 4. Cointegration Test Results**

Test Statistics	F-Bounds Test			
	Value	Significant.	i(0)	I(1)
F-statistics	11.94078	10%	2.37	3.2
k	3	5%	2.79	3.67
		2.5%	3.15	4.08
		1%	3.65	4.66

Source: Eviews 10 (2022) data processing

Table 4 shows the cointegration test of the Bound Testing Approach with the F-statistic calculated value, there is an F-statistic that has a p-value of 11.94078 where I(0) and I(1) are significant at 1%, 2.5%, 5%, and 10% which has a value greater than significant at the  $\alpha$  level so that it can be stated that the results of data processing are cointegrated in the long term.

#### 4.1.4. ARDL Model Estimation

##### 1) ARDL Long-Term Analysis

The steps taken after getting the results that the data used are cointegrated, namely looking at the coefficients in the long-term test by conducting a long-run coefficient test, the long-term relationship between variables can be seen.

**Table 5. Long term results**  
Case 2: Restricted Constant and No Trend

Variables	Coefficient	Std. Error	t-statistics	Prob.
X1	0.206839	0.076868	2.690828	0.0155
X2	-0.031373	0.031466	-0.997037	0.3327
X3	-0.077207	0.049316	-1.565542	0.1359
C	1.694523	0.610589	2.775228	0.0130

Source: Eviews 10 (2022) data processing

From the estimation results of ARDL with the Long Run Coefficient contained in the levels equation, it shows that the variable X1 (GDP) has a probability value of less than 0,05 so that this variable is stated to have a long-term influence on foreign direct investment variables.

#### 2) ARDL Short Term Analysis

In this short-term test, estimating the mode can be seen from the CointEq value, if the coefficient value is negative and the probability is significant at the 5% level, then the CointEq value is said to pass.

**Table 6. Short Term Results**

Variables	coefficient	std. Error	t-Statistics	Prob.
D(Y(-1))	-0.021301	0.104624	-0.203592	0.8411
D(Y(-2))	0.019983	0.106707	0.187269	0.8537
D(Y(-3))	0.390664	0.108854	3.588863	0.0023
D(X3)	0.113748	0.026047	4.367023	0.0004
D(X3(-1))	0.067581	0.024160	2.797278	0.0124
CointEq (-1)*	-0.739755	0.086139	-8.587890	0.0000

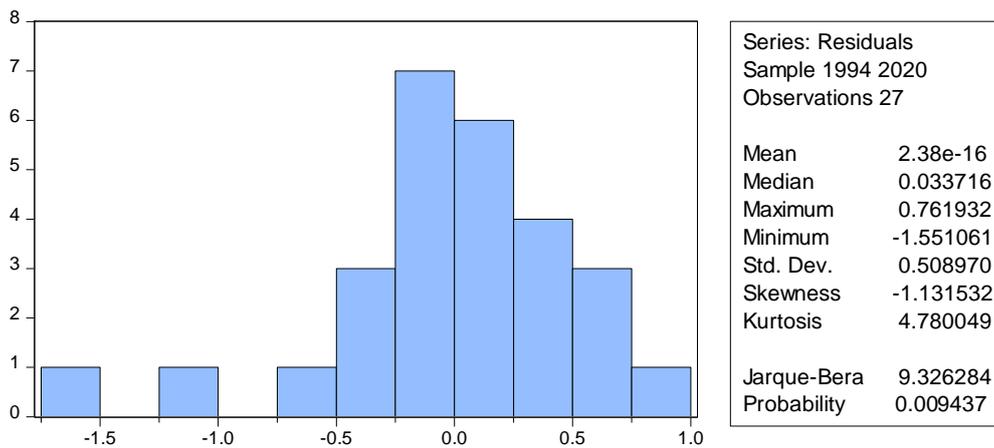
Source: Eviews 10 (2022) data processing

Table 6 shows that the Coefficient CointEq (-1) is -0.739755, then the probability value shows 0,0000 which means it is significant so that this research is cointegrated in the short term.

#### 4.1.5. Model Fit Test

##### 1) Normality Test

The normality test is used to see whether the residual values in the data are normally distributed or not. The results of the normality test are seen in the Jarque-Bera value and also the probability. It can be said that the residuals are normally distributed if the Jarque-Bera value and probability are more than 0,05 or 5%.



Source: Eviews 10 (2022) data processing

**Figure 2. Normality Test Results**

The data in graph 1 shows that the probability value is 0.009437, which means that the value is less than 0,005 or 5%, which means that the residual values in this data are not normally distributed.

2) Autocorrelation Test

The autocorrelation test is used to see whether there is a correlation between a period and the previous period and also the influence between the dependent variable and the independent variable. The model can be said to be good if it is free from autocorrelation.

**Table 7. Breusch-Godfrey Serial Correlation LM Test Results**

F-statistics	0.035162Prob. F(2,15)	0.9655
Obs*R-squared	0.125991Prob. Chi-Square (2)	0.9389

Source: Eviews 10 (2022) data processing

From the data in table 8 it can be shown that the autocorrelation test using the Breusch-Godfrey Serial Correlation LM Test has a result value from the Chi-Square Probability of 0.9389, which means that the value is greater than the probability value of 0,05 or 5%. So, it can be said that the data used has no correlation or relationship between observations or it can be said to pass the autocorrelation test.

3) Heteroscedasticity Test

Heteroscedasticity test is used to see whether there is dissimilarity between one observation and another or not. Data can be said to pass the heteroscedasticity test if there are similarities from the residuals of one observation to another.

**Table 8. Heteroscedasticity Test Results**

F-statistics	0.219970	Prob. F(9,17)	0.9871
Obs*R-squared	2.816309	Prob. Chi-Square (9)	0.9711
Scaled explained SS	2.110173	Prob. Chi-Square (9)	0.9896

Source: Eviews 10 (2022) data processing

From the Breusch-Pagan Godfrey test above, it can be seen that the Chi-Square Probability value is 0.9711, which means that the value is greater than the probability value of 0,05 or 5% so there is no heteroscedasticity and it passes the test.

4) Multicollinearity Test

The next test is the multicollinearity test which is used to determine whether the independent variables in this study are free from multicollinearity or not. The test uses the Variance Inflation Factor (VIF) method. A variable is said to pass the multicollinearity test if the VIF value of an independent variable is less than 10.

**Table 9. Multicollinearity Test Results**

Variables	Coefficient Variance	Uncentered VIF	Centered VIF
Y(-1)	0.024628	6.054222	3.497931
Y(-2)	0.027893	6.641306	3.891164
Y(-3)	0.028452	6.653841	3.941755
Y(-4)	0.018918	4.280094	2.586856
X1	0.002684	6.415788	2.857798
X2	0.000516	10.88410	6.496190
X3	0.002200	28.06526	8.006347
X3 (-1)	0.001542	20.38182	5.492747
X3 (-2)	0.001136	15.99433	4.122228
C	0.269738	18.38222	NA

Source: Eviews 10 (2022) data processing

**4.1.6. Test Specification Error**

1) Ramsey Test

The Ramsey test is a testing method for carrying out an error specification test to find out whether the variable used is linear with the dependent variable or not. Testing using the Ramsey Reset Test.

**Table 10. Ramsey RESET Test**

	Value	df	probability
t-statistic	0.456718	16	0.6540
F-statistics	0.208591	(1, 16)	0.6540

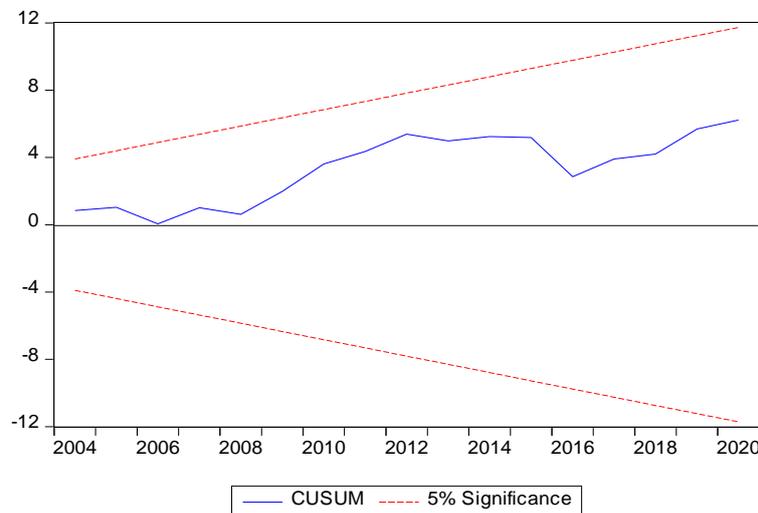
Source: Eviews 10 (2022) data processing

Based on the linearity test with the Ramsey Reset Test above, it can be seen that the probability value obtained from the t-statistic and f-statistic is 0,6540, which means that the value is greater than 0,05 or 5%, so it can be concluded that there is no linearity problem.

#### **4.1.7. Model Stability Test**

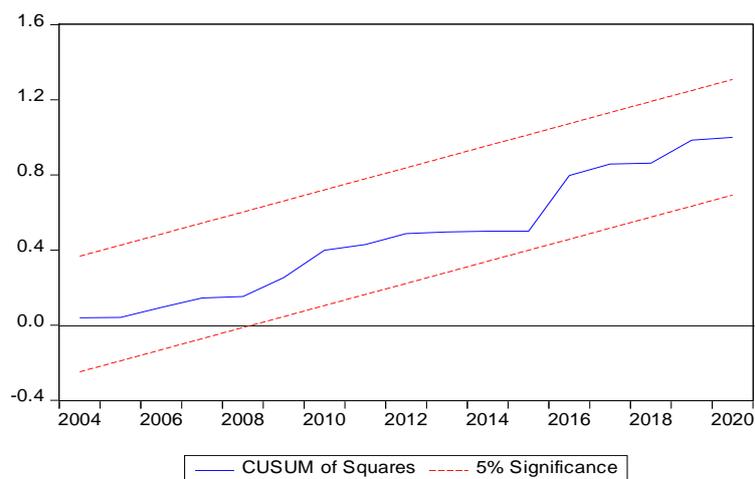
##### **1) Test Cusum and Cusum of Square**

The Cusum and Cusum Square tests are used to determine whether the model used is stable from shocks. The Structural Stability test also needs to be carried out using the Cummulative Sum of Squares of Recursive Residuals (CUSUMQ) and Cummulative Sum (CUSUM). In formulating long-term parameters, it is also necessary to combine long-term and short-term dynamics with the Cusum Test and Cusum of Square Test. The results are said to be stable if the estimated coefficient test is at a significance level of 5%.



Source: Eviews 10 (2022) data processing

**Figure 3. Cusum Test Results**



Source: Eviews 10 (2022) data processing

**Figure 4. Cusum of Square Test Results**

From the two Cusum tables above, both use a 5% confidence level, which means that the stability of the model is determined by the position of the Cusum Test and Cusum of Square Test lines in the middle between the red line with a significance of 5%. From the results of the data processing above, it can be seen that the lines in the two Cusum tests are between the red 5% significant line. Therefore, this study's model can be considered stable.

## **4.2. Discussion**

### **4.2.1. Effect of GDP on Foreign Direct Investment**

Based on the results of the research that has been done, it can be seen that the GDP variable in the long term has a p-value of 0.0155 so that it can be concluded that these results have a positive and significant effect on Foreign Direct Investment.

The results of this study are supported by research REXSY S and YUSBAR YUSUF (2015) which concludes that "GDP has a positive effect on the realization of Foreign Direct Investment (FDI) in Indonesia, then the hypothesis will be accepted and GDP is a strong variable in encouraging increased flows of Foreign Direct Investment (FDI) entering a country". In addition, in research conducted by (PERMANA & RIVANI, 2013) it can be concluded that GDP has a positive and significant influence with a 99% level of confidence in Foreign Direct Investment (FDI) in the long term. The greater the GDP, the more it will encourage the creation of an increase in Foreign Direct Investment (FDI).

In research P. DEWI & TRIARYATI (2015) it was also found that "economic growth has a positive and significant effect on foreign direct investment, the higher the economic growth, the more foreign direct investment will increase". This is because if a country has high economic growth, then it can be ascertained that the country also has a high ability to increase the production of goods/services and its economic capacity will automatically increase, thus investors will definitely have more interest in investing their capital. LETARISKY (2014) also stated that "a country's output level can be proxied to GDP so that in general an investment depends on the level of GDP obtained from a country's economic activities".

### **4.2.2. Effect of Inflation on Foreign Direct Investment**

Based on the results of the research that has been done, it can be seen that the inflation variable in the long term has a p-value of 0.3327 so that it can be concluded that these results have a negative and insignificant effect on the Foreign Direct Investment variable.

This research is in line with the research that was conducted REXSY S and YUSBAR YUSUF (2015) which says that "inflation has a negative but not significant effect on the realization of FDI, an increase in inflation can cause a purchasing power in society and public consumption also decreases. If the general price rises continuously, production will decrease in line with the decline in people's purchasing power, so that it will reduce the number of investors who will invest in Indonesia. In addition, inflation will also increase the risk of business failure which is getting bigger, so that domestic investment becomes less attractive".

#### **4.2.3. The Effect of Deposit Interest Rates on Foreign Direct Investment**

Based on the results of the research that has been done, it can be seen that the variable Deposit Interest Rate in the long term has a p-value of 0.1359 so that it can be concluded that these results have a negative and insignificant effect on the Foreign Direct Investment variable. Meanwhile, the short term Deposit Interest Rate variable has a p-value of 0.0004 so it can be concluded that the results have a positive and significant effect on the Foreign Direct Investment variable.

The effect of interest rates on long-term foreign investment is in line with research conducted by P. Dewi & Triaryati (2015) which in his research stated that “interest rates have a negative effect on foreign direct investment, the higher the interest rate in a country, the less investors who have an interest in investing capital or the amount of FDI will eventually decrease”. High interest rates are believed to be the biggest obstacle for investors to invest. When interest rates rise, loans become more expensive, so investors only have a few projects to run. However, if this interest rate falls, the cost of borrowing will be cheaper and the number of projects undertaken by investors will be greater.

## **5. CONCLUSION**

The results of this study allow for the following inferences and conclusions to be drawn:

- 1) The results of the analysis in this study indicate that GDP (Gross Domestic Product) has a positive and significant influence on long-term Foreign Direct Investment (FDI) in Indonesia.
- 2) The results of the analysis in this study indicate that inflation has a negative and insignificant effect on long-term foreign direct investment (FDI) in Indonesia.
- 3) The results of the analysis in this study indicate that the deposit interest rate has a negative and insignificant effect on foreign direct investment (FDI) in the long term, while in the short term the results of the analysis show that the deposit interest rate has a positive and significant effect on foreign direct investment (FDI).

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