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Do a Macroeconomics Affect on Foreign Direct Investment in Indonesian Firms?

Rollis Ayu Ditasari [1], Rihan Mustafa Zahri[1], Sendy Dwi Haryanto[1]

[1]Vocational Tax Management, Faculty of Economics and Business, Universitas PGRI Madiun, Indonesia

*Coresponding author: rolisayuditasari @unipma.ac.id

Abstract

Foreign direct investment (FDI) is the first step in development activities and economic growth. This study aims to determine the influence of macroeconomic variables (Inflation, BI Rate, rupiah exchange rate, Gross Domestic Product (GDP), and Foreign Exchange Reserves on Foreign Direct Investment in Indonesia. This research uses quantitative methods of secondary data from the financial statements of companies listed on the Indonesia Stock Exchange in 2016-2022. The results of this study show that only foreign exchange reserves affect Foreign Direct Investment. In contrast, Inflation, BI Rate, Exchange Rate, and GDP do not affect Foreign Direct Investment in Indonesia. Then The results of this study also show that, simultaneously, Inflation, the BI Rate, Exchange Rate, GDP, and Foreign Exchange Reserves significantly affect Foreign Direct Investment.

Keywords: Foreign Direct Investment, Inflation, BI Rate, rupiah exchange rate, Gross Domestic Product (GDP)

1. INTRODUCTION

Foreign and domestic investment is the first step in development activities and economic growth. However, Indonesia still needs to provide more capital for economic development. Indonesia must rely on more than foreign loans to obtain sufficient capital. This situation encourages developing countries like Indonesia to look for alternatives besides foreign loan assistance by promoting investment, especially Foreign Investment (PMA). According to Fuady (2008:67) in Septifany (2015). Direct foreign investment is a foreign investment model in which foreign parties or foreign companies buy (without going

through the capital market) shares of national companies or establish new companies, either through the Investment Coordinating Board (BKPM) or other departments.

Sufficient capital will lead to economic growth and improve people's welfare, especially for entrepreneurs who need financial support to develop their businesses. Through FDI, foreign capital can contribute better to development and economic growth. Investors will conduct a feasibility study or feasibility study, including forecasts, predictions, and projections, before investing in a certain place, Sondakh (2009:11). In investing; investors want to get the maximum profit with the minimum amount of expenditure. The ability of investors to understand and predict future macroeconomic conditions is very useful in making profitable investment decisions. Macroeconomics explains economic changes that affect many parties, such as society, companies, government, and the foreign sector.

Mudrajad Kuncoro (2009), in his book, writes that to show a country's performance and potential for foreign direct investment can be seen from various indicators, one of which is a macroeconomic indicator. The United Nations and Development Conference (UNCTAD) classifies Indonesia as a country with underperformers, namely a country with low foreign direct investment potential and performance. Therefore, research is needed on the factors influencing the magnitude of foreign direct investment flows in Indonesia.

An interesting phenomenon during the 1997 crisis yesterday was the debt crisis that hit Asian countries, developing countries on the African continent, and Latin American countries, creating an economic problem and conflict after accumulating too much. In some countries, this debt trap results in a twin gap, namely the savings-investment gap, which is getting bigger, and the current account gap, which is also getting bigger. The larger saving investment gap occurs because investment financing is highly dependent on foreign debt to cover it. Likewise, the export-import gap also comes from foreign debt. Quite unexpectedly, some developing countries have sufficient funds abroad to offset their national debts. As per Pastor's research (1990) in Rozaq (2003), funds amounting to 151 billion US dollars came out of Latin America during 1973-1985. That means almost 40% of the total debt is used only for transfers abroad. In Indonesia, if all capital flights return domestically, economists think that the government will no longer need foreign aid because, during the 1997-1999 crisis period, there has been a flight of around US$80 billion in the capital.

Meanwhile, the value of Indonesia's IMF aid commitment for Indonesia is only US$43 billion, and the disbursement is in installments over 5 years (Rozaq, 2003). However, the possibility of the next crisis, due to the crisis in Greece, could spread to other countries that have not recovered from the previous crisis. Countries in Europe will not allow Greece to go bankrupt, even though the magnitude of the Greek crisis is not large; the transmission effect

through financial sector transmission or the issuance of government bonds and psychological pressure results in fiscal pressure in many of Greece's neighboring countries. (Goddess, 2016)

Inflation is defined as an increase in prices in general and continuously. An increase in the price of just one or two goods cannot be called Inflation unless the increase extends (or causes price increases) to other goods. The opposite of Inflation is called deflation (www.bi.go.id). High inflation rates cause goods and services to become less competitive, which causes the profits earned by companies to decrease, discouraging new investment. Therefore, in his research, Letarisky (2014) revealed that the higher the inflation rate, the lower the foreign direct investment entering Indonesia.

Several studies examine the effect of Inflation on FDI. Research conducted by Tulong et al. (2015) showed a significant effect of Inflation on FDI. Different from the results of a study conducted by Letarisky et al. (2014), showing that there is no significant effect of Inflation on FDI.

Previous research (Tulong et al., 201 5) "The higher the interest rate, the more Foreign Direct Investment entering Indonesia can decrease. Conversely, if the interest rate in Indonesia is low, then the amount of foreign direct investment entering Indonesia will increase. This is because development costs to operate or set up a company will cost more when interest rates are high.

Several studies have been conducted to determine the effect of the Gross Domestic Product (GDP) on FDI. Research conducted by Ramadhani et al. (2015) showed a significant positive effect of GDP on FDI. This research is also supported by Letarisky et al. (2014), which shows that the gross domestic product has a significant effect on FDI. However, in contrast to the research conducted by Bunga and I Made (2015), the results show no significant effect of GDP on FDI.

Foreign exchange reserves are foreign currency deposits by central banks and monetary authorities. These deposits are central bank assets stored in several reserve currencies, such as dollars, euros, or yen. They are used to guarantee their obligations, namely the local currency issued and various bank reserves kept at the central Bank by the government or financial institution (https://id.wikipedia.org/wiki/Device_reserves) . The size of foreign exchange reserves depends on the balance of payments. The depletion of foreign exchange reserves is one of the reasons for the high level of vulnerability of the Indonesian economy, worsening the condition of the national economy (Prayitno & Sandjaya, 2001). Ultimately, it will reduce investor confidence in the Indonesian economy, reducing investment levels.

2. LITERATURE REVIEW

2.1 Effect of Inflation on Foreign Direct Investment

Inflation is a process of increasing prices in general and continuously related to market mechanisms which can be caused by various factors, including increased public consumption, excess liquidity in the market, which triggers consumption, or even speculation, including as a result of the uneven distribution of goods. In this case, Inflation is a reflection of the cost of investment. The higher the inflation rate, the higher the investment costs, so the value of FDI will decrease.

The high rate of Inflation reduced public consumption due to the declining ability of the public to buy goods due to soaring prices. Putong (2003: 264) explains that if Inflation is prolonged, many producers will go bankrupt because their products will be relatively more expensive so that no one can afford to buy them. It can be concluded that there is a negative relationship between Inflation and investment. That is the more unstable the macro economy of a country, the lower the level of investment.

The results of previous research conducted by Alhamsymi (2010) explained that "Inflation partially cannot affect foreign direct investment significantly. Several variables can influence investment, such as the destination country's environment, human resources, natural resources, and political situation. According to Cahyanto (2012), in his research, it was revealed that an increase in the inflation rate in Indonesia would lead to a decrease in the rate of foreign capital flows into Indonesia because foreign investors would delay or stop their investment activities in Indonesia. Who entered Indonesia. That indicates that foreign investors are less influential with expectations made based on Inflation, so whether there is Inflation is a condition that is considered normal. Investors also see that Inflation does not only occur in Indonesia; investors also calculate Inflation in their country and the world (Ratih, 2011) in his research. From the theory and previous research that has been put forward, the hypotheses put forward in this study are:

H1: Inflation has a significant effect on Foreign Direct Investment

2.2 The Effect of the BI Rate on Foreign Direct Investment

High-interest rates will encourage investors to choose deposits rather than buying shares. Low-interest rates will encourage investors to buy shares rather than keep them in deposits. High Inflation will increase interest rates and vice versa. Fluctuating currency exchange rates will encourage investors to invest in foreign currency and sell their shares, Samsul (2015:12).

The results of previous research conducted by (Tulong et al., 2015) and the t-test show that interest rates significantly influence FDI entering Indonesia. Research (Amida Tri

Septifany, 2015) It can be concluded that the SBI interest rate variable has a significant positive effect on foreign investment in Indonesia based on the results of partial hypothesis testing. That is different from the theory, which states that a negative relationship exists between interest rates and investment levels. If interest rates are high, the investment amount will decrease, whereas low-interest rates will encourage more investment (Sukirno, 2013: 127). From the theory and previous research that has been put forward, the hypotheses put forward in this study are:
H2: Interest rates have a significant effect on Foreign Direct Investment

2.3 Effect of the Rupiah Exchange Rate on Foreign Direct Investment

Currency exchange rates or foreign exchange rates can be defined as the amount of domestic money needed to obtain one unit of foreign currency (Sukirno, 2010, p. 397).
The exchange rate or exchange rate is the amount of domestic money needed, namely the number of rupiahs needed to obtain 1 unit of foreign currency. (Nabilla Mardiana Pratiwi, 2015).

The results of previous research conducted by (Marselia Anugerah Ramadhani, 2015), From the results of the t-test, it is concluded that the exchange rate significantly influences FDI in Indonesia. A significant negative value means that the lower (weak) the exchange rate, the more FDI in the Manufacturing Sector will increase. Research (Maya Malisa, 2017) the exchange rate significantly negatively affects foreign investment in Indonesia, meaning that if the rupiah exchange rate appreciates, foreign investment will decrease. (Amida Tri Septifany, 2016). This study's result is that the rupiah exchange rate against the Dollar simultaneously significantly affects foreign investment in Indonesia. From the theory and previous research that has been put forward, the hypotheses put forward in this study are:
H3: The rupiah exchange rate has a significant effect on Foreign Direct Investment

2.4 Effect of Gross Domestic Product on Foreign Direct Investment

Gross Domestic Product (GDP) is the value of goods and services produced in the territory of a country, both by domestic citizens and foreign nationals who work in that country's territory. Monica Letarisky (2014).

Sukarno (2013: 61) also reveals that what is meant by Gross Domestic Product is the value of goods and services produced in a country in a certain year by using factors of production belonging to its citizens and those belonging to residents in other countries. Usually valued at market prices and can be based on prevailing and fixed prices.
The results of previous research were conducted by Nurul Afni Romadhona (2016). Shows that there is no effect of the rate of gross domestic product on FDI. Thus Ho is accepted, and

H1 is rejected. That may be because increasing and decreasing GDP growth will positively impact foreign investors.

That is different from Letarisky's research (2015). Partially, GDP has a significant effect on Foreign Direct Investment in Indonesia. The results of this study prove that a higher level of economic growth in Indonesia will increase the amount of Foreign Direct Investment entering Indonesia. Vita and Kyew (2008) state that the greater the GDP generated, the higher the foreign direct investment will increase. From the theory and previous research that has been put forward, the hypotheses put forward in this study are:

H4: Gross domestic product has a significant partial effect on Foreign Direct Investment

2.5 Effect of Foreign Exchange Reserves on Foreign Direct Investment

The size of foreign exchange reserves depends on the balance of payments. The depletion of foreign exchange reserves is one of the causes of the high level of vulnerability of the Indonesian economy, worsening the condition of the national economy, Prayitno and Sandjaya (2001).

The results of previous research conducted by Amida Tri Septifany (2015) concluded that foreign investment could be significantly influenced by foreign exchange reserves, or by increasing foreign exchange reserves, foreign investment will experience a significant increase. This means that foreign exchange reserves are one of the factors considered by potential foreign investors. From the theory and previous research that has been put forward, the hypotheses put forward in this study are:

H5: Foreign exchange reserves have a significant effect on Foreign Direct Investment

2.6 Effect of Inflation, Interest Rates, Rupiah Exchange Rate, Gross Domestic Product, and Foreign Exchange Reserves on Foreign Direct Investment in Indonesia.

From the results of Septifany's research (2015), there is a significant influence of Inflation, interest rates, the rupiah exchange rate, and foreign exchange reserves on Foreign Direct Investment in Indonesia from the results of simultaneous hypothesis testing.

Letarizky, (2014). The variables of Gross Domestic Product, inflation rate, SBI interest rate, and Rupiah exchange rate simultaneously have a significant effect on Foreign Direct Investment entering Indonesia.

H6: There is a significant simultaneous effect of Inflation, interest rates, the Rupiah exchange rate, gross domestic product, and foreign exchange reserves on foreign direct investment in Indonesia.

3. RESEARCH METHOD

3.1 Research Object and Research Sample

The object of this study is all data published by Bank Indonesia on the variables studied, namely Inflation, interest rates, the rupiah exchange rate, gross domestic product, and foreign exchange reserves on *foreign direct investment*. This research period is from 2016-2022, which has the following criteria :

Table 1 Operational Variables

No.	Variable	Draft	Formula	Scale
1.	Inflation (X1)	The inflation data used in this study is the percentage value of the inflation rate based on the Consumer Price Index (CPI) issued by the Bank. Indonesia every quarter for 9 years, starting from the first quarter 200 8 -fourth quarter 201 5 in percentage (%).	1. Price level year now 2. Price level previous year. The formula for calculating the level inflation is: $CPI = \frac{CPI\ t\text{-}IHKt\text{-}1}{CPI\ t\text{-}1} X100$	Ratio
2.	Interest Rate (X2)	The interest rate data used in this research is the SBI interest rate issued by Bank Indonesia every quarter for 9 years, starting from a quarter I 200 8 -quarter IV 201 5 in percentage (%).	*The BI rate* in this study is Inflation per month, measured in percentage units (%).	Ratio
3.	Rupiah Exchange Rate (X3)	The exchange rate data used in this study is the middle exchange	Middle Rate = $\frac{\text{Selling rate + buying rate}}{2}$	Nominal

		rate issued by Bank Indonesia. Every quarter for 9 years, starting from the first quarter of 2008 - the fourth quarter of 2015, with units of Rupiah per US Dollar.	1. The exchange rate in this study is the rupiah value against the US Dollar per month, measured in Rupiah units.	
2.	Gross Domestic Product (X4)	Data on the value of Gross Domestic Product is the Value of GDP at constant prices in billion rupiahs for the 2008-2015 period issued by the Bank Indonesia.	Y=C+I+G+NX	Nominal
3.	Foreign Exchange Reserves (X5)	The data used is on Indonesia's foreign exchange reserves issued by Bank Indonesia from the first quarter of 2008 to the fourth quarter of 2015 in a million USD.	Bank Indonesia.	Nominal
4.	Foreign investment (Y)	The data used is quarterly data for 9 years issued by Bank Indonesia, starting from the first quarter 200 8 - fourth quarter 201 5 in Million USD .	FDI = ln(Total FDI Investment).	Nominal

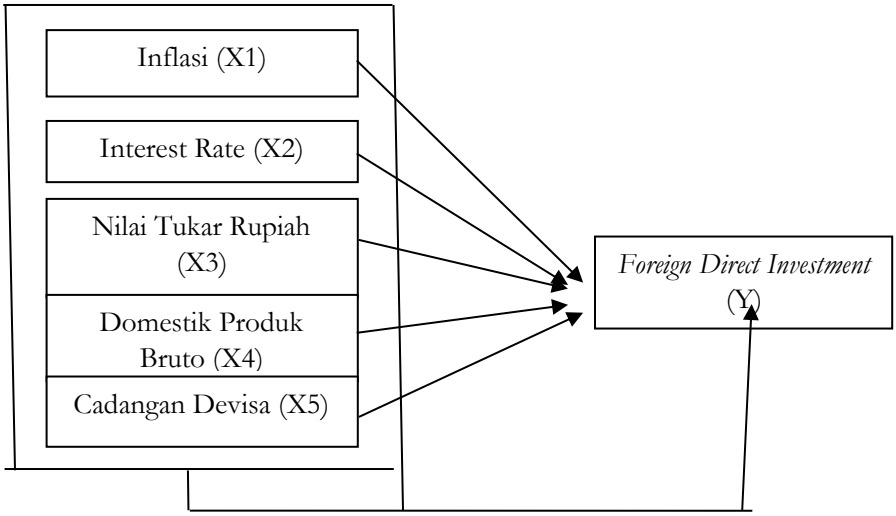

Figure 1 Research Model

3.2 Types and Data Collection Techniques

The type of data used in this study is secondary data obtained from data collection techniques from the database. The population used in this study is all data published by Bank Indonesia for 2016-2021 *purposive sampling* with the following criteria: The sample in this study was obtained from quarterly data calculations. Number of samples in research (n) from quarterly time series data (1 year = 4 quarters) during the period January 2016 - December 2022 (4 quarters x 8 years = 32 samples).

4. RESULT

4.1 Descriptive Statistical Analysis

Based on the results of the descriptive statistical test output with IBM SPSS Statistics 22, it can be seen that the minimum, maximum, average, and standard deviation values are as follows.

Table 2 Descriptive statistics

	N	Minimum	Maximum	Means	std. Deviation
INFLATION	32	2.78	12,14	6.1822	2.41417
BI_RATE	32	5.75	9,42	7.0059	,95378
EXCHANGE RATE	32	8590.37	13850.88	10382,1003	1573,35937

GDP	32	1029018,70	2312692.50	1810189,878	371984,95941
FOREIGN EXCHANGE	32	51639.00	119655.00	92088,2188	22157,90752
FDI	32	540.00	9318.00	4100,9063	1853,48777

The table above describes the statistical description of the variables in this study. The maximum is the largest value from a series of observations, the mean (average) is the sum of the values of all data divided by the number of data, while the standard deviation is the square root of the difference between the data values and the average divided by the number of data. Table 4.1 shows the descriptive research variables with the number of valid data for each variable, as many as 32, as follows :

a. Inflation has a minimum value of 2.78 and a maximum value of 12.14. *The mean* Inflation is 6.1822 with a standard deviation of 2.41418 .
b. BI *RATE minimum* value is 5.75, and the maximum value is 9.42. *The mean* BI *RATE* is 7.0059 with a standard deviation of .95378 .
c. The exchange rate has a minimum value of 8590.37 and a maximum value of 13850.88 . *The mean* exchange rate is 10382.1003 with a standard deviation of 1573.35937 .
d. GDP has a minimum value of 1029018.70 and a maximum value of 2312692.50 . The mean GDP is 1810189.878 with a standard deviation of 371984.9594 .
e. Foreign exchange reserves have a minimum value of 51639.00 and a maximum value of 119655.00 . The mean foreign exchange reserves is 92021.8750 with a standard deviation of 22157.90752 .
f. Foreign Investment has a minimum value of 540.00 and a maximum value of 9318.00. Mean *Foreign Direct Investment* is 4100.9063 with a standard deviation of 1853.48777.

4.2 Classic assumption test

The classical assumption test is performed to see whether the assumptions required in the linear regression analysis are met. The classic assumption test in this study tested statistical normality of data, multicollinearity test, autocorrelation test, and heteroscedasticity test.

a. Normality test

The normality test is a test used to find out whether, in the regression model, confounding variables have a normal distribution. This study tested the normality test using

the Kolmogorov-Smirnov (KS) non-parametric statistical test. Starting with making a test hypothesis, namely:

Table 3 Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residuals
N		32
Normal Parameters [a,b]	Means	0E-7
	std. Deviation	1408,58840781
Most Extreme Differences	absolute	,138
	Positive	,138
	Negative	-.099
Kolmogorov-Smirnov Z		,780
asymp. Sig. (2-tailed)		,577
a. Test distribution is Normal.		
b. Calculated from data.		

Source: Processed Secondary Data, 2023

Kolmogorov-Smirnov test showed that the magnitude of the *Kolmogorov-Smirnov value* is 0.780 with asymp. Significant (2-tailed) 0.577. With these results and a significance level greater than 0.05 ($\alpha > 0.05$), it can be concluded that the data is normally distributed.

b. **Multicollinearity Test**

The multicollinearity test is used to determine whether the regression model found a correlation between independent (independent) variables. A good regression model should not correlate with independent variables. The presence or absence of multicollinearity can be seen from the *tolerance* and VIF values if the low tolerance value is the same as the high VIF value (because VIF = 1/ *Tolerance*). The *cutoff* value commonly used to indicate the presence of multicollinearity is the *Tolerance value* ≤ 0.10 or the same as the VIF value ≥10.

If the regression model has a *Tolerance value* of ≤ 0.10 or the same as a VIF value of ≥10, then there is no multicollinearity in the regression model.

Table 4 Multicollinearity test results

Coefficients [a]			
Model		**Collinearity Statistics**	
		tolerance	**VIF**
1	(Constant)		
	INFLATION	,335	2,983
	BI_RATE	, 162	6,162
	EXCHANGE RATE	,335	2,981
	GDP	,270	3,710
	FOREIGN EXCHANGE	,256	3,899
a. Dependent Variable: PMA			

Source: Secondary data processed, 2023.

Based on the results of the multicollinearity test in table 4.3 above, it can be seen that the results of calculating the *tolerance value* of each independent variable are inflation 0.335, BI *RATE* 0.162, exchange rate 0.335, GDP has a value of 0.270 and foreign exchange reserves is 0.256; tolerance value > 0.10 which means there is no multicollinearity between the independent variables. The VIF calculation results for each independent variable are Inflation of 2.983, Bi Rate of 6.162, Exchange rate of 2.981, GDP has a value of 3.710, and foreign exchange reserves of 3.899, where the VIF value < 10. So there is no multicollinearity between the independent variables in the multiple linear regression model.

c. **Autocorrelation Test**

The autocorrelation test is a test to test whether, in the linear regression model, there is a correlation between the confounding errors in period t and the interfering errors in the t-1 (previous) period. If there is a correlation, then there is called an autocorrelation problem. Autocorrelation arises because successive observations over time are related to one another. This problem arises because of residuals (confounding errors) from one observation to another. Detecting symptoms of Autocorrelation can be done with the *Durbin* test – *Watson* (d.w.). The *Durbin-Watson* test is only used for first-*order Autocorrelation* and

requires an *intercept* (constant) in the regression model, and there are no more variables among the independent variables. The hypothesis to be tested is:
Ho : no autocorrelation (r = 0) Ha : there is autocorrelation (r ≠ 0)

Table 5 Decision Making Whether or not Autocorrelation exists

Null Hypothesis	Decision	If
There is no positive autocorrelation	Reject	0 < d < d.l
There is no positive autocorrelation	No decision	dl ≤ d ≤ du
There is no negative correlation	Reject	4- dl < d < 4
There is no negative correlation	No decision	4- du ≤ d ≤ 4 – dl
There is no autocorrelation, positive or negative	Not denied	du < dw <4 – du

To determine whether Autocorrelation exists, we must first look at the value of the Durbin-Watson test. From the test results obtained the following results:

Table 6 Durbin-Watson Test Results

Summary Model [b]					
Model	R	R Square	Adjusted R Square	std. Error of the Estimate	Durbin-Watson
1	,650 [a]	,422	,311	1538.07773	2,033
a. Predictors: (Constant), FOREIGN EXCHANGE, EXCHANGE, INFLATION, GDP, BI_RATE					
b. Dependent Variable: PMA					

Source: Secondary data processed, 2023.

from the output above, it is obtained that the DW value resulting from the regression model is 2.110. Meanwhile, from the DW table with a significance of 0.05 and the amount of data (n) = 32, and k = 5 (k is the number of independent variables), the value (dU) is 1.8187.

This shows that the value of dU < Dw < 4-du (1.8187 < 2.033 < 2.1813), it can be concluded that there is no positive or negative autocorrelation.

d. **Heteroscedasticity Test**

The heteroscedasticity test is a test used to find out whether, in the regression model, there is an inequality of variance from the residuals of one observation to another. If the variance from one residual observation to another remains, then it is called Homoscedasticity; if it is different, it is called Ghozali's heteroscedasticity (2013: 134). Heteroscedasticity detection can be done by looking at the scatterplot graph between SRESID and ZPRED, where the Y axis is Y that has been predicted, and the X axis is the residual (Y predicted-Y actually) that has been studied.

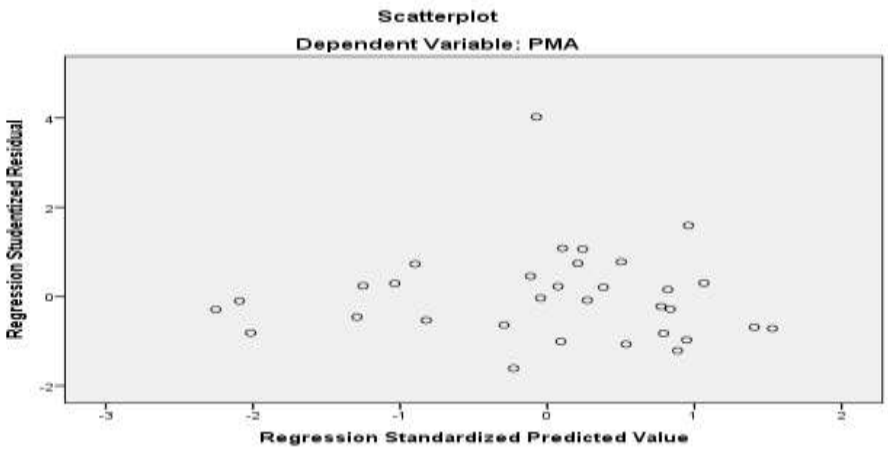

Figure 2. Heteroscedasticity Test

The results of the heteroscedasticity test from Figure 2 show that the scatterplot graph between SRESID and ZPRED shows a scattering pattern where the points spread above and below 0 on the Y axis. That shows that there is no heteroscedasticity in the data to be used.

e. **Multiple Linear Regression Analysis Test**

The results of testing the classical assumptions that have been carried out, it can be concluded that the regression model in this study is feasible to use because the regression model has been free from data normality problems, there is no multicollinearity, no autocorrelation, and no heteroscedasticity. Furthermore, multiple regression analysis can be used to obtain the regression coefficient, determining whether the hypothesis will be

accepted or rejected; regression analysis is also useful to determine the magnitude of the influence between variables. The secondary data that has been collected and then analyzed using multiple regression with the help of SPSS *software which is formulated as* follows:

$$Y = a + X_1 + X_2 + X_3 + X_4 + X_5 + e$$

The following table will explain the effect of BI inflation (X1), BI *RATE* (X2), an exchange rate (X3), GDP (X4), foreign exchange reserves (X5), and FDI (Y) through the results of multiple linear regression analysis as follows:

Table 7 Multiple linear regression analysis tests

Coefficients [a]				
Model		**Unstandardized Coefficients**		**Standardized Coefficients**
		B	**std. Error**	**Betas**
1	(Constant)	-6278,678	3880,917	
	INFLATION	157,036	197,645	,205
	BI_RATE	850,318	718,954	,438
	EXCHANGE RATE	-.325	,303	-,276
	GDP	,001	,001	,222
	FOREIGN EXCHANGE	.052	.025	,630
a. Dependent Variable: PMA				

Source: Secondary data processed, 2023.

Based on the results of multiple regression analysis in Table 4.7 above, the regression equation that can be compiled is:

$Y = - 6278.678 + 157.036 X_1 + 850.318 X_2 – 0.325 X_3 + 0.001 X_4 – 0.052 X_5 + e$

The regression coefficient of the research shows various signs: positive and negative. The coefficient with a positive sign indicates a change in the direction of the independent variable towards the dependent variable. In contrast, the coefficient with a negative sign indicates a change in the opposite direction between the independent variable and the dependent variable.

4.3 Hypothesis Testing Results

4.3.1 Partial regression coefficient test (T-test)

This test is used to determine whether the independent variables in the regression model partially have a significant effect on the dependent variable. If t count > t table or Sig. < 0.05, then there is a partial effect of the independent variable on the dependent variable. Conversely, if t count <t table or Sig. > 0.05, so there is no partial effect of the independent variable on the dependent variable (Ghozali, 2015, p. 97). Based on the calculation results using the SPSS version 20.0 program, the results are shown in the table below

Table 8 T-test

Coefficients [a]			
Model		**T**	**Sig.**
1	(Constant)	-1.593	,123
	INFLATION	,788	,438
	BI_RATE	1,161	,256
	EXCHANGE RATE	-1,062	,298
	GDP	,802	,430
	FOREIGN EXCHANGE	2,094	.046

Based on the test results in the table above, the effect of Inflation (X_1), BI *RATE* (X_2), Exchange Rate (X_3), GDP (X_4), foreign exchange reserves (X_5) to FDI (Y) can be explained as follows:

a. Inflation Variable (X_1)

Calculated t value of the Inflation variable (X_1) of 0.788 and t_{table} of 2.042 ($t_{count} < t_{table}$). Then from a significant level t of 0.438 greater than 0.05 (0.050> 0.05), it can be concluded that the inflation variable does not affect FDI.

b. BI RATE variable (X_2)

calculated t value of the BI *RATE variable* (X_2) of 1.161 and t_{table} of 2.042 ($t_{count} < t_{table}$). Then from a significant t level of 0.256 greater than 0.05 (0.050> 0.05), it can be concluded that the BI *RATE variable* does not affect FDI.

c. EXCHANGE variable

calculated t value of the EXCHANGE variable (X_3) is -1.062, and t_{table} is 2.042 ($t_{count} < t_{table}$). Then from a significant t level of 0.298 greater than 0.05 (0.050> 0.05), it can be concluded that the EXCHANGE variable does not affect FDI.

d. GDP variable

calculated t value of the PDB variable (X_4) of 0.802 and t_{table} of 2.042 ($t_{count} < t_{table}$). Then from the significant level t of 0.430 greater than 0.05 (0.050> 0.05), it can be concluded that the GDP variable does not affect FDI.

e. Foreign Exchange Reserve Variable

calculated t value of the foreign exchange reserve variable (X_5) is 2.094, and the t_{table} is 2.042 ($t_{count} < t_{table}$). Then from the significant level t of 0.046 less than 0.05 (0.050> 0.05), it can be concluded that the foreign exchange reserve variable has a partially significant effect on FDI.

4.3.2 Simultaneous Test (F)

The F test is different from the t-test, which tests the significance of the partial regression coefficients individually by testing the particular hypothesis that each regression coefficient is equal to zero. The F test tests the hypothesis that all variables are simultaneously equal to zero. If $F_{count} > F_{table}$ with Sig. 5%, then there is a simultaneous influence on the dependent variable. Conversely, if $F_{count} < F_{table}$ with Sig. 5%, then there is no simultaneous effect on the dependent variable. Ghozali (2016:96).

Table 9 F test

ANOVA [a]						
Model		**Sum of Squares**	**Df**	**MeanSquare**	**F**	**Sig.**
1	Regression	44598695,338	5	8919739,177	3,747	,011 [b]
	residual	61899228,83	26	2380789,570		

	Total	106497924,719	31			
a. Dependent Variable: PMA						
b. Predictors: (Constant), FOREIGN EXCHANGE, EXCHANGE, INFLATION, GDP, BI_RATE Source: Secondary data processed, 2023.						

The calculation results above show that the significance value is 0.011, and the calculated F value is 3.747. The basis for decision-making is the significance level of 5 % or 0.05. Because the significance value is less than 0.05, it shows the influence of Inflation , BI *RATE* , Exchange Rate, Gross Domestic Product and Foreign Exchange Reserves simultaneously on FDI.

Another basis for decision-making is that the $_{\text{calculated}}$ F value must be greater than the F $_{\text{table}}$ to determine the influence of the independent variable on the dependent variable. The calculation above shows that the $_{\text{calculated F value}}$ is 3.747, which is greater than the F $_{\text{table value}}$ of 2.65. The variables Inflation, BI *RATE* , Exchange Rate, GDP, and Foreign Exchange Reserves are simultaneously related to FDI.

4.3.3 Coefficient of Determination (R^2)

This analysis is used to jointly determine the percentage contribution of the independent variables to the dependent variable. If R^2 is equal to 0 (zero) then there is not the slightest percentge of influence contribution given by the independent variable to the dependent variable. Conversely, if R^2 equals 1 (one), then the percentage of influence contribution given by the independent variable to the dependent variable is perfect. Ghozali (2013: 95).

Table 10 Coefficient of Determination

Summary Model [b]				
Model	**R**	**R Square**	**Adjusted R Square**	**std. An error of the Estimate**
1	, 647 [a]	,419	,307	1542,96454
a. Predictors: (Constant), FOREIGN EXCHANGE, EXCHANGE, INFLATION, GDP, BI_RATE				
b. Dependent Variable: PMA				

Source: Secondary data processed, 2023.

The table above shows that the *adjusted R square value* is 0.307, indicating that the independent variable can explain 30.7% of the variation in the dependent variable. In comparison, the remaining 69.3% is explained by other variables outside the research variables.

5. DISCUSSION

5.1 Effect of Inflation on *Foreign Direct Investment*

The first hypothesis in this study is "The Effect of Inflation on *Foreign Direct Investment* " Research shows several findings. First, based on the results of the T-test (partial) in the regression model, it is known that the significance value of the inflation variable is 0.438, more than 0.05 (0.434 > 0.05). Besides that, it can also be seen from the results of the comparison between t count and t table. The calculated t value is 0.788, while the t table is 2.042. From these results, it can be seen that t count > t table is 0.788 <2.042 because the significance value is more than 0.05 and the t count value is smaller than t table, then H_0 is rejected, and Ha is accepted, meaning that partially the inflation variable does not affect FDI because the increase or decrease in prices enjoyed by investors is still higher than the increase in production costs that must be incurred, so investors still benefit.

The results of this study follow Ratih's (2011) in her research, "The inflation rate does not have a major impact on the flow of foreign investment into Indonesia. This indicates that foreign investors are less influential with expectations made on the basis of Inflation so that whether there is Inflation is a condition that is considered normal. Investors also see that Inflation does not only occur in Indonesia, investors also calculate Inflation in their country and Inflation in the world. (Ratih, 2011) in his research. Alhamsymi's research (2010) explains that "Inflation cannot partially affect foreign direct investment significantly. Several variables can influence investment, such as the destination country's environment, human resources, natural resources, and political situation.

5.2 The Effect of the BI *Rate* on *Foreign Direct Investment*

The second hypothesis in this study is " The Effect of the BI *Rate* Interest *Rate* on *Foreign Direct Investment*" . Besides that, it can also be seen from the results of the comparison between t_{count} and t_{table} . The $_{calculated}$ t value shows 1.183 , while the t_{table} of 2.042 . From these results, it can be seen that $t_{count} > t_{table}$ is 1.161 <2.042 because the significance value is more than 0.05 and the $t_{count\ value}$ is smaller than $t_{table,}$ then H_0it is rejected and Ha is accepted, meaning that partially the BI *RATE variable* does not affect FDI. Because the BI *RATE* changes quickly, investors don't consider the effect of high and low-interest rates because FDI takes place in the long term. This research is not in line with Amida Tri Septifany

(2015) conclusion that the SBI interest rate variable has a significant positive effect on *Foreign Direct Investment* in Indonesia based on the results of partial hypothesis testing.

5.3 Effect of the Rupiah Exchange Rate on *Foreign Direct Investment*

The third hypothesis in this study is " The Effect of the Rupiah Exchange Rate on *Foreign Direct Investment*" . Besides that, it can also be seen from the results of the comparison between t_{count} and t_{table} . The calculated t value shows of - 1.072 , while the t_{table} is 2.042 . From these results, it can be seen that $t_{count} > t_{table}$ is -1.072 <2.042 because the significance value is more than 0.05 and the $t_{count\ value}$ is smaller than $t_{table,}$ then H_0 it is rejected and Ha is accepted, meaning that partially the EXCHANGE variable does not affect FDI. Because exchange rate movements always change in a short time while foreign investment is long-term, investors have other more important considerations in carrying out their investment strategy.

This research is not in line with Marselia Anugerah Ramadhani (2015). from the results of the t-test, it is concluded that the exchange rate has a significant influence on FDI in Indonesia. A significant negative value means that the lower (weak) the exchange rate, the more FDI in the Manufacturing Sector will increase. Research by Maya Malisa (2017). The exchange rate significantly negatively affects foreign investment in Indonesia, meaning that if the rupiah exchange rate appreciates, foreign investment will decrease.

5.4 Gross Domestic Product on *Foreign Direct Investment*

The fourth hypothesis in this study is " The Effect of Gross Domestic Product on *Foreign Direct Investment*" , Based on the results of the t (partial) test on the regression model, it is known the significance value of the GDP variable is 0.430 more than 0.05 (0.430 > 0.05). Besides that, it can also be seen from the results of the comparison between t_{count} and t_{table} . The calculated t value shows 0.802 , while the t_{table} of 2.042 . From these results, it can be seen that $t_{count} > t_{table}$ is 0.802 <2.042 because the significance value is more than 0.05 and the $t_{count\ value}$ is smaller than $t_{table,}$ then it H_0 is rejected, and Ha is accepted, meaning that partially the GDP variable does not affect FDI because the high and low results of GDP growth have a small impact on FDI.

This research is in line with the results of Nurul Afni Romadhona's research (2016). Shows that there is no effect of the rate of gross domestic product on FDI. Thus Ho is accepted, and H1 is rejected. That may be because the increase and decrease in GDP growth will positively impact foreign investors. and not in line with Letarisky (2015). Partially, GDP has a significant effect on Foreign Direct Investment in Indonesia. The results of this study prove that the higher level of economic growth in Indonesia will increase the amount of

Foreign Direct Investment entering Indonesia.

5.5 Effect of Foreign Exchange Reserves on *Foreign Direct Investment*

The fourth hypothesis in this study is " The Effect of Foreign Direct Investment on *Foreign Direct Investment"* Based on the results of the t (partial) test on the regression model, it is known that the significance value of the foreign exchange reserves variable is 0.046 which is less than 0.05 (0.046 <0.05). Besides that, it can also be seen from the results of the comparison between t_{count} and t_{table} . The $_{calculated}$ t value shows of -2.094, while the t_{table} is 2.042. From these results, it can be seen that $t_{count} > t_{table}$ is 2.094 > 2.042 because the significance value is less than 0.05 and the $t_{count\ value}$ is greater than $t_{table,}$ then H_0 it is rejected, and Ha is accepted, meaning that partially the foreign exchange reserve variable has a significant effect on FDI Due to the increasing foreign exchange reserves in Indonesia, the greater the level of investment

The results of this study are in accordance with Amida Tri Septifany (2015). It is concluded that foreign investment can be significantly influenced by foreign exchange reserves or by increasing foreign exchange reserves; foreign investment will experience a significant increase. This means that foreign exchange reserves are one of the factors considered by potential foreign investors.

5.6 The Influence of Inflation, Interest Rates , Rupiah Exchange Rate, Gross Domestic Product and Foreign Exchange Reserves on *Foreign Direct Investment* in Indonesia.

The fourth hypothesis in this study is "The Influence of Inflation, Interest Rates, Rupiah Exchange Rate, Gross Domestic Product and Foreign Direct Investment Reserves on *Foreign Direct Investment* in Indonesia" From the calculation results of the f test, it can be seen that the significance value is 0.011 and the calculated F value is 3.747 . The basis for decision-making is the significance level of 5 % or 0.05. Because the significance value is less than 0.05 indicates the simultaneous influence of Inflation, BI RATE, exchange rates, GDP, and foreign exchange reserves on FDI.

6. CONCLUSION

Based on the results of data analysis and discussion that have been presented in the previous chapter, several conclusions can be drawn as follows, 1) Based on the partial results of the t-test, it shows that Inflation, BI RATE, EXCHANGE, and GDP have no effect on FDI. In contrast, foreign exchange reserves show that significant effect on FDI. 2) Based on hypothesis 6, it shows that Inflation, BI Rate, exchange rate, GDP, and foreign exchange

reserves affect FDI. To overcome the limitations in this study, researchers can consider the following: It is hoped that the government will be able to maintain and improve policies in the monetary sector to improve macroeconomic conditions in Indonesia. The first improvement is that the government must continue to increase the value of Gross Domestic Product because the GDP variable has a dominant influence on manufacturing FDI. Second, the stability of the exchange rate is also expected to be maintained by the government so that the Rupiah exchange rate against the Dollar does not decline too sharply, even though the low rupiah exchange rate is a special attraction for foreign investors. It is hoped that this research can become a reference for subsequent researchers to develop research, especially on Foreign Direct Investment in the manufacturing sector, by considering other influencing variables beyond the variables discussed in this study.

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