

# Impact of Macroeconomic Indicators: Economic Growth, Inflation, Interest Rates and Exchange Rates on the Condition of Foreign Direct Investment (FDI) in Indonesia 2000-2019

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## Abstract

*Study this aim for knowing influence growth economy, inflation, Interest Rate, and value exchange rate to FDI investment in Indonesia. Data used in study this is secondary data sourced \_ from World Bank Data and Bank Indonesia. Data analysis techniques in study this is analysis regression multiple. Research results showing that Economic Growth and Exchange Rates have an effect positive but no significant to FDI investment, while Inflation and Interest Rates have a negative and significant effect to FDI investment in Indonesia. From result research, can seen that ethnic group flower is the most influential factor strong to FDI investment in Indonesia. In this case, the government should pay more attention to interest rates in order to attract investors to invest.*

## Keywords

economic growth; inflation;  
interest rates; exchange rates;  
FDI investment



## I. Introduction

Indonesia as one of the countries that adheres to system economy open naturally no miss from party domestically and \_ abroad. In running development national, limitations in financing could Becomes problem . one \_ source financing for cover limitations cost is with investment . Thirafi (2013). one \_ effort government in look for financing from abroad is \_ with FDI investment . PMA investment is divided into two, namely FDI investment and Portfolio investment. The difference between FDI and Portfolio investment is that FDI investment is a direct investment where there is share ownership so that when a crisis occurs this investment cannot be withdrawn, while portfolio investment is an indirect investment or commonly known as *Hot Money* because when a crisis occurs, this investment can be withdrawn by investors.

In the last 20 years, there have been several phenomena that affect FDI investment, namely in 2000-2010 there was a global financial crisis. This crisis began in 2007 when France's largest bank, BNP Paribas, posted a number of securities related to high-risk US housing loans. This freeze then rippled into financial markets and spread around the world. In August 2008 the financial crisis escalated with the bankruptcy of one of the largest investment banks in America, namely Lehman Brothers, and was followed by worsening financial difficulties in a number of large-scale financial institutions in America, Europe and Asia. Crisis global finance has an impact to Indonesia as reflected in the money and capital markets (Bank Indonesia Publication 2009). Crisis this global finance then impact on FDI investment which declined in 2009. In 2010-2019, more to be precise in 2016 it happened weakening world economy, weakening this caused by falling price world oil and power buy declining society \_ so that happening drop investment in 2016).

Economic growth is still an important goal in a country's economy, especially for developing countries like Indonesia (Magdalena and Suhatman, 2020).

Research objectives this for knowing how much big influence growth economy, inflation, interest rate , value exchange rate to FDI investment in Indonesia in 2000-2019

## II. Review of Literature

There is a number of study the former which will be described by concise, because study this referring to research before . Although room nearly scope \_ same, but object and period different times , so \_ could made reference .

There is summary study the former who became reference in study this as following:

No	Author and Title Study	Research objectives	Analysis tools	Research variables	Research results
1	<b>Hugo Leonardo Prasetyo Khafidzin 2021</b>  Determinants of Foreign Direct Investment (FDI) Inflow in ASEAN-8	to analyze the effect of exchange rates, human capital, and economic growth on FDI inflows in ASEAN-8 for the 2010-2019 period	By using panel data regression (FEM),	Independent : exchange rate, human capital, and economic growth  Dependent FDI inflow	The results of the study show that economic growth, human capital, and exchange rates have a significant effect on FDI flows in ASEAN-8 countries.
2	Determinants of Foreign Direct Investment in Asian Countries: An Empirical Analysis  <b>G. Rod Erfani</b> <b>Transylvania University, USA</b> <b>Jack Berger Indiana University, USA</b> <b>Vol. 10 No. 1 (2020):</b> <b><u>International Journal of Economic Behavior</u></b> <b>DOI:</b> <a href="https://doi.org/10.14276/2285-0430.2296">https://doi.org/10.14276/2285-0430.2296</a>	<i>The purpose of this paper is to examine empirically the determinants of inward FDI for a panel of Asian countries</i>	<i>A pooled ordinary least squares (OLS) , semi-log fixed-effects (FE) regression model is utilized to analyze</i>	The dependent variable is FDI net inflows. The explanatory variables include democracy, inflation, human capital, economic growth, domestic investment, trade openness, and financial development.	<i>The fixed effects regression results show all variables with exception of the financial development variable are statistically significant and have the expected sign.</i>

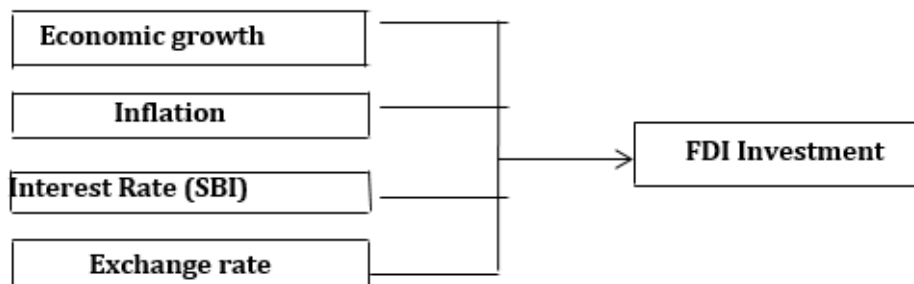
3	<p align="center"><b>Foreign Direct Investment Determinants in OECD and Developing Countries</b></p> <p><u>Fotini Economou, Christis Hassapis, Nikolaos Philippas, Mike Tsionas</u>  <a href="https://doi.org/10.1111/rode.12269">https://doi.org/10.1111/rode.12269</a>  Volume21, Issue3  <b>August 2017</b></p>	<p>In this paper we examine the foreign direct investment (FDI) inflow determinants in 24 Organization for Economic Co-operation and Development (OECD) and 22 developing (non-OECD) countries over 1980–2012</p>	<p>using the standard fixed effects as well as a dynamic panel approach.</p>	<p>Dependent : FDI,</p> <p>Independent market size, gross capital formation and corporate taxation , labor cost and institutional variables</p>	<p>We also examine a group of developing countries, taking into consideration the increased share of world FDI inflows that developing countries have attracted, and compare the results. In this case, lagged FDI, market size, labor cost and institutional variables provide the most robust results. The empirical results have important policy implications indicating the factors that host economies should emphasize in order to attract FDI inflows.</p>
4	<p>Determinants of foreign direct investment in developing countries: a panel data study", International Journal of Emerging Markets, Vol. 12 Issue: 4, pp.658-682, <a href="https://doi.org/10.1108/IJoEM-10-2014- 0169">https://doi.org/10.1108/IJoEM-10-2014- 0169</a></p> <p align="center"><b>Reenu Kumari, Anil Kumar Sharma, (2017)</b></p>	<p>The purpose of this paper is to identify key determinants of foreign direct investment (FDI) inflows in developing countries by using unbalanced panel data set pertaining to the years 1990-2012.</p>	<p>methodology/approach Using explanatory</p>	<p>variables (market size, trade openness, infrastructure , inflation, interest rate, research and development and human capital),</p>	<p>The findings reveal that market size is the most significant determinant of FDI inflow. Research limitations/implications Like any other study, this work also has some limitations. Lack of data on key determinants such as labor cost, exchange rate, corruption, natural resources, effectiveness of rule of law and political risk may be considered one such limitation. Further, controlling for variables such as exchange rate, corruption, labor cost and political risk could make significant improvements to this study.</p>
5	<p>Determinants of Foreign Direct Investment: Evidence from Vietnam</p> <p align="center"><b>NGO, Minh Ngoc; CAO, Huy Hoang NGUYEN, Long Ngoc NGUYEN, Thuc Ngoc (2020)</b></p>	<p>The paper investigates the determinants of foreign direct investment (FDI) in Vietnam in 2000-2019 period.</p>	<p>This study uses difference Generalized Methods of Moments (GMM) and Pooled Mean Group (PMG) to analyze panel data</p>	<p>Dependent : FDI</p> <p>Independent: labor force, macroeconomic policy, macroeconomic stability and skilled labor</p>	<p>The findings of this study lead to the following recommendations. First, authorities should pay special attention to encourage economic growth rate in Vietnam to expand market size because this is the first priority of foreign investors. Second, authorities need to continue increasing the rate of skilled labour, especially highly qualified management forces, engineers and well-skilled workers. Third, the authorities should adjust trade openness to boost the role of its determinant in attracting FDI</p>

					inflows. Fourth, macroeconomic stability needs to be governed by international standards in order to secure the belief of foreign investors in the long-term.
6	<p><b>Determinants of Foreign Direct Investment in Indonesia “Evidence from Co-Integration and Error Correction Modeling ”</b></p> <p><i>Alessandro Gabrielle Wijaya1, Dewi Astuti1, Zeplin Jiwa Husada Tarigan1 *, and Natasya Edyanto2 (2020)</i></p>	This study aims to examine the influence of macroeconomic indicators and infrastructure spending on foreign direct investment (FDI) in the period 1981 to 2018. This study uses a quantitative approach.	The analysis technique used is cointegration and error correction modeling	The sample in this study is macroeconomic variables, which include gross domestic product, inflation, debt to GDP ratio, interest rates, exchange rates, and infrastructure spending	The analysis shows that gross domestic product, inflation, debt to GDP ratio, interest rates, exchange rates, and infrastructure spending have a long-term and short-term relationship to FDI.
7	<p>Fuji Astuti &amp; Ina. NP Siregar (2018)</p> <p>Determinant investment foreigners in Indonesia 1998-2015 _</p>	To analyze the factors that influence foreign investment in Indonesia	Method used is regression simple Ordinary Least Square (OLS)	Dependent : Foreign investment Independent : GDP, infrastructure, exchange rate and interest rate	The results show that GDP, infrastructure, and exchange rates have a positive and significant effect. Meanwhile, interest rates have a negative effect.

### Framework Thinking

In research this is done four variable supposedly independent \_ take effect to FDI investment in Indonesia . As for the suspected variables take effect to FDI investment in Indonesia , namely growth economy , inflation , value exchange rate , and tribe flower . With Thus , growth economy , inflation , value exchange rate , and tribe flower Becomes ups and downs investment in Indonesia.

Growth economy , inflation , value exchange rate , tribe flowers made \_ variable independently \_ \_ Partial or suspected influence investment in Indonesia. Based on description on could made scheme framework thinking connection Among FDI investment and influencing variables:



### III. Research Method

#### 3.1 Variable Research

Variables used in research are dependent and independent variables. A dependent variable (bound) is the variable that is influenced or whose consequence is determined by the existence of independent variables. Whereas an independent variable (free) is a variable that influences other variables or becomes a consequence because of the change in independent variables. Soegiyono (2003). In this research, the dependent variable is FDI investment, while the independent variables are economic growth, inflation, exchange rate, and interest rate.

#### Definition Operational Variable

In this research, one dependent variable and four independent variables are used. The operational definition of every variable in the study is as follows:

- a. FDI Investment  
FDI investment is investment by foreign individuals or foreign investment (PMA) carried out by foreign investors in Indonesia in the period 2000-2019. Measurements are taken in percentage points.
- b. Economic Growth  
Economic growth is the ability to enhance the production of goods and services in Indonesia in 2000-2019. Measurements used are in percentage points.
- c. Inflation  
Inflation is the rise in the price of goods and services in Indonesia in 2000-2019. Measurements used are in percentage points.
- d. Interest Rate (SBI)  
Interest rate Bank Indonesia Certificate (SBI) is the interest rate determined by Bank Indonesia in the period 2000-2019. The interest rate used is in percentage points.
- e. Exchange rate  
Exchange rate or swap is the price of the rupiah against the US dollar in the period 2000-2019. Exchange rate used is the exchange rate calculated as the average of the exchange rate for buy and sell. Variable Mark swap is declared in Indonesian Rupiah (Rp).

#### 3.2 Data Types and Sources

Data can be obtained by measuring one or more variables in a sample (population), which can be classified into quantitative and qualitative data. Kuncoro (2001). The type of data used in this research is quantitative data, that is, data measured in numerical scales. Quantitative data here is in the form of coherent data over time (*time series*), i.e., data compiled for a specific time period.

Study this using secondary data that is, data that has been provided by institution data collector seta published to public data users . Data in research this obtained from World Bank publications , and Bank Indonesia publications in the form of : report Bank Indonesia annual data in the form of 2000-2019 annual data .

### 3.3 Data Collection Method

In research this method used \_ is in data collection method documentation , that is with record and copy related written data \_ with problem study good from the internet and Bank Indonesia branch office in Ambon, Maluku.

### 3.4 Data Analysis

Data analysis used in research this as following:

- a. Analysis descriptive , with use picture
- b. Analysis quantitative , done with make equality regression with FDI investment as the dependent variable and growth economy , inflation , rates interest , and value exchange rate as variable independent

### 3.5 Analysis Method

by general analysis basically regression \_ is studies about dependency one variable dependent with one or more independent variables , with meaning for estimate and predict variable mean value dependent based on Mark variable known independent . \_ Center of attention is in the effort explain connection Among something variable or more variable independent . Gujarati (1997:35).

Analysis result regression is coefficient regression for each variable independent . coefficient could obtained with method predict Mark variable dependent with something equation . Coefficient regression calculated with two goals , namely : minimize deviation Among actual value and value estimation of the dependent variable , and maximizing correlation Among the actual and estimated value of the dependent variable based on the data obtained . Mudrajad Kuncoro ( 2001: 92). With assume  $Y = f( X_1, X_2, X_3, X_4)$  in connection functional where Y as function smooth , then the regression model multiple for the five variables where variable dependent is function smooth from four independent variables .

The basic model of this research is as follows:

$$\text{Log FDI} = \text{o} + 1 \text{ Log PE} + 2 \text{ Log inflation} + 3 \text{ Log Interest rate} + 4 \text{ Log Exchange Rate} + e$$

Information :

FDI = foreign direct investment

PE = Economic Growth

Inflation = Inflation

Interest rate = SBI interest rate

= exchange rate US dollar

1 ..... 4 = independent variable

e = error term

### 3.6 Assumption Test Classic

On research this Writer use analysis regression multiple. this way used for knowing is a regression model good or no if used . one \_ condition use regression multiple is fulfillment testing to assumption classic . A model is said good if is BLUE (*Best Linear Unbiased Estimator*), that is meet assumption classic or avoid from problems on

multicollinearity , heteroscedasticity , autocorrelation , and linearity tests , then carried out statistical test namely t test and F. t test is done for see existence influence from variable independent to variable dependent and F test performed for see influence by together from variable independent to variable dependent . because \_ that , in study need assumption test is carried out classic for knowing is occur deviation or no , so that research worthy for used

## IV. Results and Discussion

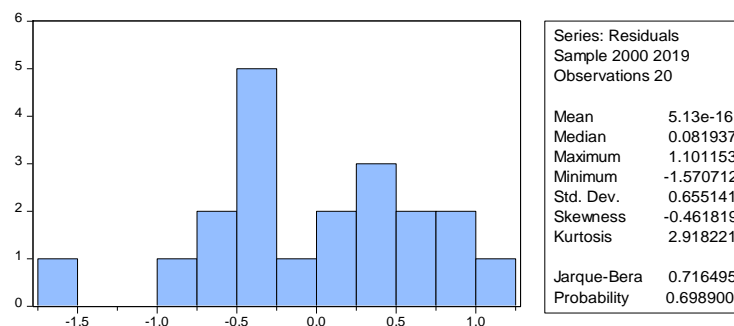
### 4.1 Results

Assumption test classic is a statistical test for test the extent to which a regression model multiple can be tested as a good model. Regression model is also called as a good model if the model fulfill assumptions classic namely , multicollinearity, autocorrelation , heteroscodesity, and normality. Testing process assumption classic used evIEWS together with the regression test process so that steps use work same with regression test,

#### a. Normality Test

Normality test used for test in regression, is variable bully or residuals have normal distribution or no. The analytical model used for do testing is the Jarque-Bera Test. according to Ghozali (2017) the hypothesis used in Jarque-Bera. test test as following:  
H0: variable the nuisance (residual) is normally distributed if Mark probability  $> 0.05$   
Ha: variable nuisance (residual) distributed not normal when Mark probability  $< 0.05$ .

From day testing normality , obtained Mark jarque-bea of 0.716495 with Mark The probability is  $0.698 > 0.05$ , indicating that H0 is accepted , which means residual variables are normally distributed .



#### b. Multicollinearity Test

one \_ regression model assumptions classic is no no there is multicollinearity between variable independent in the regression model . Multicollinearity signify perfect relationship in some \_ or all variable independent in regression models, Gujarati (2003). according to Winarno (2015:5.1) mentions that multicollinearity is condition there is linear relationship between variable independent . As for the way detect whether or not problem multicollinearity as following:

1. Looking at the Variance Inflation Factor (VIF) , namely factor increase variety . With see tolerance value or variance inflation factor (VIF). If value
2. tolerance  $> 0.10$  and VIF  $< 10$  then no occur multicollinearity , and if tolerance value  $< 0.10$  and VIF  $> 10$ , then there is multicollinearity problem. \_

From result testing obtained that no there is problem with multicollinearity with results testing Mark Centered VIF variable independent  $< 10$  which means the data is free from multicollinearity.

Variance Inflation Factors  
 Date: 10/05/21 Time: 17:23  
 Sample: 2000 2019  
 Included observations: 20

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	11.08920	407.9424	NA
GDP	0.131898	138.8329	2.355068
INFLATION	0.006208	13.65436	3.203050
SBI	0.012637	39.32631	5.311036
EXCHANGE RATE	0.013372	56.95902	1.894766

### c. Heteroscedasticity Test

Heteroscedasticity test used for test what is regression model there is inequality variance from residual one observation to observation others, Ghazali (2011:139). In research this for see is got into trouble heteroscedasticity is with using the white test . White 's test uses the squared residual as variable independent and variable independent is variable already \_ there , then added with square added with multiplication two variable independent . How to use in white test that is with see Obs \*R-Squared and value Chi Squares. if Obs \*R-Squared on Mark Chi Square s, and value Probability Mark Chi Squares  $> 0.05$  indicates no occur problem on heteroscedasticity , and if Mark Obs \*R-Squared above Mark Chi Squares , and value Probability Mark Chi Squares  $< 0.05$  then there is a problem heteroscedasticity .

From result testing obtained Mark Obs \*R-Squared is 18,83235 and Chi Squares value is 0.1715, and the probability value of Chi Squares is 0.7504  $> 0.05$ . It means no there is problem on heteroscedasticity .

Heteroskedasticity Test: White

F-statistics	5.760149Prob. F( 14.5)	0.0319
Obs *R-squared	18.83235Prob. Chi -Square( 14)	0.1715
Scaled explained SS	10.16005Prob. Chi -Square( 14)	0.7504

### d. Autocorrelation Test

The purpose of the autocorrelation test is for see variable dependent no correlated with Mark variable that alone , ok Mark year before nor afterwards . according to Duwi Priyatno (2012:172) autocorrelation is situation where in the regression model there is correlation between residuals ( bullies ) in years certain t with residual in year before (t-1), there is a good regression model is the one that doesn't there is problem with autocorrelation .

According to Danang Sunyoto (2013:98) for see there is whether or not problem with autocorrelation is with using the Durbin-Watson (DW) test, with provision as following:



1. Autocorrelation occur if DW value below -2 or  $DW < -2$
2. Autocorrelation no occur if DW value is between -2 and 2 or  $-2 < DW < 2$ .

From result testing obtained Durbin-Watson (DW) value of 1.908468  $> -2$  and  $< 2$ , meaning no there is problem with autocorrelation.

R-squared	0.812478	Mean dependent var	1.268000
Adjusted R-squared	0.762472	SD dependent var	1.512894
SE of regression	0.737337	Akaike info criterion	2.440773
Sum squared resid	8.154979	Schwarz criterion	2.689707
Likelihood logs	-19.40773	Hannan-Quinn criter .	2.489368
F-statistics	16.24765	Durbin-Watson stat	1.908468
Prob(F-statistic)	0.000025		

### e. Hypothesis Test

#### 1. Regression multiple

Multiple regression equation as follows:

$$Y = 0 + 1 + 2 + 3 + 4 + e$$

$$Y = -3.522 + 0.731 + 0.277 - 0.400 + 0.233 + e$$

The results of the regression equation obtained can be interpreted as follows:

- a) The coefficient value of 0 is -3.522 . if GDP, inflation, interest rates, and exchange rates do not change or the value is the same, then the possibility of a decrease in FDI investment is -3,522.
- b) The value of the coefficient 1 is 0.731, meaning that if GDP increases by 1 year, FDI investment will increase by 0.7% (rounded up). The coefficient has a positive effect where there is a positive relationship between GDP and FDI investment but not significant with a prob value of  $0.0623 > 0.05$ .
- c) The coefficient value of 2 is 0.277. This means that if inflation increases by 1 year, then FDI investment will increase by 0.2% (rounded up). The coefficient has a positive effect where there is a positive relationship between inflation and FDI investment and is significant with a prob value of  $0.0031 < 0.05$ .
- d) The value of the coefficient 3 is (-0.400). This means that if interest rates increase by 1 year, FDI investment will decrease by 0.4% (rounded up). The coefficient has a negative effect where there is a negative relationship between interest rates and FDI investment but is significant with a prob value of  $0.0028 < 0.05$ .
- e) The value of the coefficient 4 is 0.233. This means that if the exchange rate increases by 1 year, then FDI investment will increase by 0.2% (rounded up). The coefficient has a positive effect where there is a positive relationship between the exchange rate and FDI investment but it is not significant with a prob value of  $0.0620 > 0.05$ .

#### 2. Simultaneous Significance Test (F Statistics Test)

In a study conducted by Eka Ramawati (2019) the F test was carried out with observation prob value F statistic  $<$  from Mark significance (0.05). From the results obtained in table 4.9 which shows that prob value F statistic  $< 0.05$  with Mark significant

of  $0.000025 < 0.05$ . This thing showing that to four variable independent take effect to the dependent variable .

### 3. Partial Significance Test (Test Statistical t)

Test this aim for knowing influence of independent variable to the dependent variable. In a study conducted by Eka Ramawati ( 2019 ) for determine is variable independent take effect to variable dependent , can seen from prob value  $<$  value significance ( 0.05 ). With hypothesis as following:

- a) Ho is accepted if the prob value is  $< 0.05$ , meaning that the independent variable has a significant effect on the dependent variable
- b) Ho is rejected if the prob value  $>$  from 0.05, which means the independent variable has no significant effect on the dependent variable

Based on the results of the processing that the partial influence of GDP, inflation, interest rates, exchange rates can be seen from the direction of the relationship and the level of significance.

Test results hypothesis variable independent by Partial to variable the dependencies can be analyzed as following.

- 1) the effect of GDP on FDI investment in Indonesia shows Mark no significant with prob value  $>$  from 0.05 ( $0.0623 > 0.05$ ) of results the could summed up that Ho is rejected and Ha is accepted . So that can be said that GDP is not take effect significant to FDI investment in Indonesia.
- 2) influence inflation to FDI investment in Indonesia shows Mark significant with prob value  $<$  of 0.05 ( $0.0031 < 0.05$ ) of results the could concluded that Ho is accepted and Ha is rejected . So that could said that inflation take effect significant to FDI investment in Indonesia.
- 3) influence ethnic group flower to investment fdi in Indonesia shows Mark significant with prob value  $<$  of 0.05 ( $0.0028 < 0.05$ ) of results the could concluded that Ho is accepted and Ha is rejected . So that could
- 4) said that ethnic group flower take effect significant to FDI investment in Indonesia.
- 5) influence Mark exchange rate to investment fdi in Indonesia shows Mark no significant with prob value  $>$  from 0.05 ( $0.0620 > 0.05$ ) of results the could concluded that Ho is rejected and Ha is accepted . So that could said
- 6) that Mark exchange rate no take effect significant to FDI investment in Indonesia.

### 4. Coefficient of Determination Test (R2 Test)

The coefficient of determination (R2) essentially measures how far the model's ability to explain the dependent variable is. The value of the coefficient of determination is zero and one. A small value of determination means that the ability of the independent variable in explaining the variation of the dependent variable is very limited. A value close to one means that the independent variable provides almost all of the information needed to predict the variation of the dependent variable.

From the results of the processing that the influence of the variables of GDP, inflation, interest rates, exchange rates on FDI investment in Indonesia, the Adjusted R-squared value of 0.762 is obtained. This illustrates that the independent variable explains the level of FDI investment in Indonesia by 76.2% and the remaining 23.8% is explained by other factors.

Dependent Variable: INVEST  
 Method: Least Squares  
 Date: 09/02/21 Time: 13:25  
 Sample: 2000 2019  
 Included observations: 20

Variable	Coefficient	Std. Error	t-Statistics	Prob.
C	-3.522998	3.330046	-1.057943	0.3068
GDP	0.731353	0.363178	2.013761	0.0623
INFLATION	0.277153	0.078789	3.517643	0.0031
SBI	-0.40963	0.112414	-3.566857	0.0028
EXCHANGE RATE	0.233187	0.115636	2.016564	0.0620
R-squared	0.812478	Mean dependent var		1.268000
Adjusted R-squared	0.762472	SD dependent var		1.512894
SE of regression	0.737337	Akaike info criterion		2.440773
Sum squared resid	8.154979	Schwarz criterion		2.689707
Likelihood logs	-19.40773	Hannan-Quinn criter .		2.489368
F-statistics	16.24765	Durbin-Watson stat		1.908468
Prob(F-statistic)	0.000025			

## 4.2 Discussion

### a. Effect of GDP on FDI Investment in Indonesia

From result regression known that GDP gives impact positive but no significant to FDI investment in Indonesia. With see Mark coefficient regression partial (  $\beta_1$  ) of 0.731 p this showing that every 1 year increase in GDP then FDI investment will increase of 0.731 % but no significant with Mark probability 0.0623 > 0.05. From the test results above in accordance with hypothesis where GDP matters positive to FDI investment in Indonesia but no significant, meaning GDP increase does not too take effect to GDP. This result in accordance study previously conducted by Dharmawan (2018), Fuji Astuti & Ina Namora Putri Siregar (2018) shows that growth economy take effect positive to FDI investment in Indonesia. GDP is indicator growth economy that has impact positive to FDI investment, due to rising GDP will attract investors to invest , Sarwedi (2002)

### b. Influence Inflation to FDI Investment in Indonesia

From result regression known that inflation give effect to FDI investment in Indonesia. With see Mark coefficient regression ( $\beta_2$ ) of 0.277, which shows if every 1 year increment inflation so FDI investment will increase by 0.277% and significantly with Mark probability 0.0031 < 0.05. From the test results according to with hypothesis where inflation take effect positive and significant to FDI investment in Indonesia. because when request to goods many so the amount of money will many Thing that will spur inflation , on the other hand when request many so will occur enhancement productivity for fulfil request so that even the capital will increase and invest will increase .

This result in accordance with theory quantity where inflation only can occur if existence increase in the volume of money in circulation a lot.

### c. The Effect of Interest Rates (SBI) on FDI Investment in Indonesia

From result regression known that ethnic group flower give effect positive and significant to FDI investment in Indonesia. With see Mark coefficient regression partial (3) of -0.400 , which shows if every 1 year increment ethnic group flower so FDI investment

will down by 0.40% and significant with Mark probability  $0.0028 < 0.05$ . This result in accordance with theory and research previously conducted by A. Nabila (2008) and Fuadi.A (2015) which show negative influence on FDI investment. The more tall Mark ethnic group flowers , then investment will the more decreased , vice versa if ethnic group flower down so investment will increase , p this because if ethnic group flower tall so cost for setting up and operating will need more cost \_ big , please et al (2013). Amount investment could influenced by level ethnic group interest , rate rising interest \_ occur consequence from existence drop investment, too on the other hand , if ethnic group flower experience drop so investment will increase, thing this because happening drop cost from investment , Ernita (2013). From the results of the regression test in accordance with hypothesis where ethnic group flower negative and significant effect to FDI investment in Indonesia, because when ethnic group interest increases , investors will choose for save their money in the bank compared for invest . Conversely, if interest rates are low, investors will choose to invest.

#### **d. The Effect of Exchange Rates on FDI Investment in Indonesia**

From result regression known that Mark exchange rate give impact positive to FDI investment in Indonesia but no significant . With see Mark coefficient regression ( 4) of 0.233 , which shows if every 1 year increment Mark exchange rate so FDI investment will increase by 0.233% but no significant with Mark probability  $0.0620 < 0.05$ . This result in accordance with theory and research previously conducted by A. Nabila (2018) and Bilawal (2014) which show that exchange rate take effect positive to investment . Results shown that Mark exchange rate take effect positive to FDI investment in Indonesia. This thing in accordance with the hypothesis that states Mark exchange rate take effect positive but no significant to FDI investment in Indonesia. It means that the more received a lot of rupiah or the strengthening US dollar causing investor interest in invest to Indonesia. In research this , the weakening of the rupiah actually interesting FDI investment in Indonesia, pg this because cost business operation company (transportation, materials raw, energy work ) more small , so increase company profit if export it to abroad .

This result in accordance with theory *currency areas hypothesis theory* says that company foreigners who have Mark more exchange rate strong compared to other countries , tend to will choose invest compared to countries that value the rate weak, because the country values exchange it weak more risk if choose for invest .

### **V. Conclusion**

Based on results research and discussion that has been conducted related with the influence of GDP, inflation, interest rates, and exchange rate to FDI investment in Indonesia, then the conclusion are:

1. Growth the economy seen by GDP in 2000-2019 has an effect positive but no significant to FDI investment in Indonesia. With thereby concluded that GDP no too take effect to FDI investment in Indonesia.
2. Viewed inflation \_ from inflation data 2000-2019 influential \_ positive and significant to FDI investment in Indonesia. With thereby concluded that when inflation goes up FDI investment will also increase.
3. Viewed Interest Rate of Interest rates (SBI) for 2000-2019 have an effect negative and significant to FDI investment in Indonesia. With thereby concluded that when ethnic group interest (SBI) goes up then FDI investment will decreased, vice versa when ethnic group interest rate (SBI) decreased so FDI investment will increase.

4. Viewed Exchange Rates from Mark exchange rate middle from 2000-2019 influential \_ positive but no significant to FDI investment in Indonesia. With thereby concluded that Mark exchange rate no too take effect to FDI investment in Indonesia

## References

- Achmad, Kuncoro, 2001, How to Use and Define Classical Assumption Analysis, First Edition. Bandung: ALFABETA.
- AK Coleman and KA Tettey, 2008. Money Market and Foreign Exchange Market. Jakarta: Salemba Empat.
- Alessandro Gabrielle Wijaya<sup>1</sup>, Dewi Astuti<sup>1</sup>, Zeplin Jiwa Husada Tarigan<sup>1\*</sup>, and Natasya Edyanto<sup>2</sup> (2020) “ Determinants of Foreign Direct Investment in Indonesia “Evidence from Co-Integration and Error Correction Modeling”
- Awan, MZ, Khan, B., & Uz Zaman, K. 2011. Economic determinants of Foreign Direct Investment (FDI) in commodity producing sector: A case study of Pakistan. African Journal of Business Management, 5(2).
- Boediono , 1995. Macroeconomics. Yogyakarta:BPFE .
- Ernita , Dewi, Syamsul Amar, Efrizal sofyam . 2013. Analysis Economic Growth , Investment , and Consumption in Indonesia. Journal of Economic Studies. 1( 02 )
- Fotini Economou, Christis Hassapis , Nikolaos Philippos, Mike Tsionas “Foreign Direct Investment Determinants in OECD and Developing Countries ” <https://doi.org/10.1111/rode.12269> Volume21, Issue3 August 2017
- Fuji Astuti & Ina. NP Siregar (2018) “ Determinants investment foreigners in Indonesia 1998-2015 ”
- G. Rod Erfani “Determinants of Foreign Direct Investment in Asian Countries: An Empirical Analysis” Transylvania University, USA Jack Berger Indiana University, USA Vol. 10 No. 1 (2020): International Journal of Economic Behavior
- Ghozali , Imam (2002). Application Analysis Multivariate with the SPSS Program. Semarang: Diponegoro University Publishing Agency
- Ghozali , Imam. 2005. Application Multivariate Analysis with SPSS. Semarang: UNDIP Publishing Agency.
- Gujarati, Damodar N. 2006. Basic Econometrics . Jakarta : Publisher Erlangga .
- Hugo Leonardo Prasetyo Khafidzin 2021 “Determinants Foreign Direct Investment (FDI) Inflow in ASEAN-8”
- Krugman, Paul, 1997, “ Firesale FDI”, Working Paper, Massachusetts Institute Of Technology.
- Magdalena, S., Suhatman, R. (2020). The Effect of Government Expenditures, Domestic Investment, Foreign Investment to the Economic Growth of Primary Sector in Central Kalimantan. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*. Volume 3, No 3, Page: 1692-1703.
- NGO, Minh Ngoc;CAO , Huy HoangNGUYEN , Long Ngoc NGUYEN, Thuc Ngoc (2020) “Determinants of Foreign Direct Investment: Evidence from Vietnam”
- Nopirin , 2000. “ Monetary Economy II”. Yogyakarta : BPFE – UGM
- Octaviana, Ana. 2007. Analysis Effect of Rupiah/US\$ Exchange Rate and SBI Interest Rate on Composite Stock Price Index on the Jakarta Stock Exchange . Thesis . Semarang: Semarang State University.
- Pure, Asfia. 2009. Macroeconomics . Bandung. Refika Aditama .
- Putong , Iskandar. 2003. Introduction to Micro and Macroeconomics . Indonesian Ghalia

- Reenu Kumari, Anil Kumar Sharma, (2017) “Determinants of foreign direct investment in developing countries: a panel data study”, *International Journal*
- Sadono, Sukirno. 1994. *Introduction to Macroeconomics*. PT. King Grasindo Perseda. Jakarta.
- Samuelson, Paul A. & William D. Nordhaus. (1995). *Macro-Economics*. Fourteenth edition, Erlangga Publisher, Jakarta.
- Sarwedi. 2002. Foreign Direct Investment in Indonesia and the Factors Affecting It. *Journal of Accounting & Finance*, 4(1). Jember: Petra Christian University
- Shah, Nahid. 2013. Determinats of Foreign Direct Investment: A Study On Bangladesh. *Journal of Economics and Sustainable Development*. 4(18),
- Shahzad, Syed JH, Paeman Ali, Fawad Saleem, Sajid Ali, and Sehrish Akram (2013) Stock Market Efficiency: Behavioral Or Traditional Paradigm Evidence From Karachi Stock Exchange (KSE) And Investor Community Of Pakistan. *Interdisciplinary Journal Of Contemporary Research In Business*, Vol. 4, No. 10,
- Soumia, Zenasni and Benhabib Abderrezzak . 2013. The Determinants of Foreign Direct Investment and Their Impact on Growth: Panel Data Analysis for AMU Countries. *International Journal of Innovation and Applied Studies*, 2(3).
- Sukirno, Sadono. 2004. *Introduction to Macroeconomic Theory*. Jakarta: PT. King Grafindo Persada.
- Thirafi, Muhammad Aulia Zul. 2013. The Effect of Economic Growth, Availability of Manpower, Infrastructure and Population Density on Foreign Investment in Kendal Regency. *Economics Development Analysis Journal*, 2(1):
- Topowijono , Gerard A. Tulong , and Suhadak . 2015. Analysis Of Macro Economic Influence On Foreign Investment Decisions In Indonesia (Study at Bank Indonesia Period 2005-2013). *Journal Administration Business (JAB)*|Vol. 22 No. May 2, 2015 (<http://administrasibisnis.studentjournal.ub.ac.id/>) accessed on January 25, 2016
- Utama, Made Suyana. 2013. Potential and Increased Investment in the Agricultural Sector to Increase Contribution to the Economy in Bali Province, *Bulletin of Economic Studies , of Emerging Markets*, Vol. 12 Issue: 4, pp.658-682, <https://doi.org/10.1108/IJoEM-10-2014-0169>
- Zaenuddin Muhammad. 2009. Analysis of Factors Affecting FDI Investment in Batam. *Journal. Batam. Batam Polytechnic*. Vol 2 No 2