Analysis Of The Influence Of Foreign Direct Investment (Fdi), Inflation And Interest Rates On Economic Growth In Indonesia

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ABSTRACT

The purpose of this study is to determine the development of foreign direct investment (FDI), inflation, interest rates, economic growth and per capita income in Indonesia, as well as the effect of foreign direct investment (FDI), inflation and interest rates on economic growth and per capita income in Indonesia. Indonesia in the period from 2000 to 2019. The type of data used in this study is secondary in the form of time series, with the OLS (Ordinary Least Squares) research model. The research results show that simultaneously, foreign direct investment (FDI), inflation and interest rates have no significant effect on economic growth and per capita income in Indonesia.

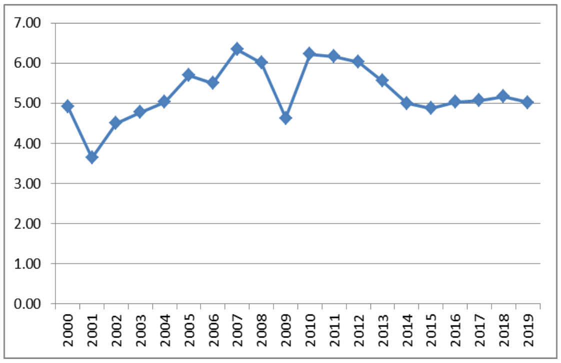
Keywords: Foreign Direct Investment (FDI), Inflation, Interest Rates, Economic Growth

1. Introduction

Economic development is a process that occurs continuously and is planned to be carried out in a directed manner to develop the existing economy, as well as to reduce unemployment, inequality and poverty in a country. So that there can be more adequate infrastructure available, growing companies, increasing quality of technology, higher education levels, wider employment opportunities and increasing Gross Domestic Product (GDP) and income per capita. In Indonesia, per capita income continues to experience an increasing trend from year to year. According to data obtained from the Central Statistics Agency (BPS), the average income per capita in Indonesia has continued to increase in the 2015-2019 period, where in 2015 the average income per capita in Indonesia was Rp. 45,120,000, then in 2016 it increased to Rp. 47,940,000, in 2017 Rp. 51,890,000, and in 2019 experienced a significant achievement from the previous year, namely in 2018 which amounted to Rp. 55,990,000 increased to Rp. 59,070,000. This increase is an achievement that is considered to reflect an improvement in people's welfare and is a form of achieving economic development.

Economic development is also closely related to economic growth or what is commonly called economic growth. Where, economic development has an important role in driving economic growth. Vice versa, economic growth plays an important role in facilitating economic development. The existence of economic growth is one indication of the success of economic development. In Indonesia, the rate of economic growth has fluctuated over the last 20 years. This happened because the impact of the monetary crisis that occurred in 1998 was still being felt several years later. After finally experiencing recovery in several years, economic growth again experienced fluctuations as a result of the global financial crisis that occurred in 2008 which not only affected economic growth that year, but also affected economic growth in the following years.

Graph 1.1 Economic Growth in Indonesia in 2000-2019

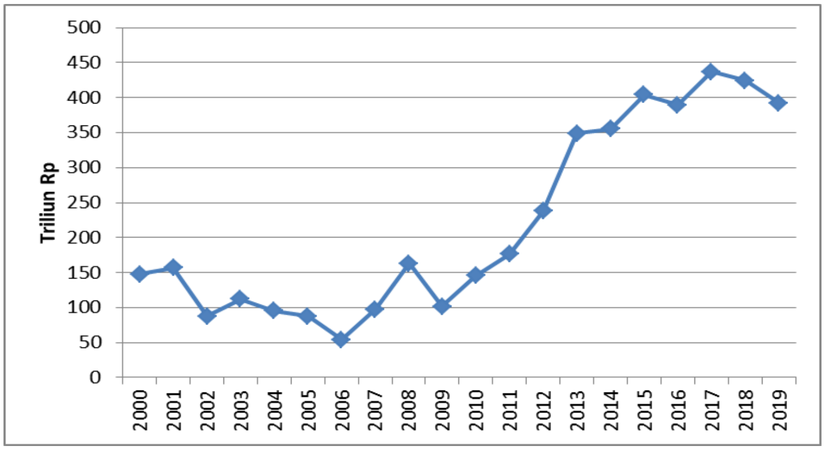


Source: World Bank (processed), 2022

It can be seen from the graph above, the data sourced from the world bank shows the trend of economic growth that occurred in Indonesia in 2000-2019 which has decreased and increased every year or is called fluctuation. As previously explained, economic growth in Indonesia has fluctuated, one of which is caused by the monetary crisis that occurred in 1998, in which year economic growth decreased drastically to minus 13.13%. Even though several years have passed, in fact the impact of this monetary crisis will still be felt for several years to come. It can be seen that in 2000 economic growth has experienced growth and managed to reach 4.9%, although then again experienced a significant decline in the following year, namely in 2001 to 3.6%. Despite the decline, economic growth continued to creep up every year until 2008, before finally experiencing a drastic decline again in 2009 as a result of the global financial crisis in 2008. This crisis was not only felt by Indonesia, but also by other countries. other countries. In 2009 economic growth in Indonesia was only 4.63% from the previous 6.01% in 2008. Even so, Indonesia's economic growth still managed to enter the world's top three. After experiencing a decline in 2009, economic growth increased again in 2010, although in the following years until 2013 it tended to decline again and grew at a steady rate in 2014 until the end of 2019. Under these fluctuating conditions, economic growth is expected may increase again. Increasing economic growth itself is inseparable from investment which is expected to help increase production and infrastructure activities.

Investments needed with the aim of boosting economic growth come from foreign direct investment. The existence of this investment is necessary in order to assist in accelerating the economy. In this case foreign direct investment investment is usually provided not only in the form of funds but also in the form of technology transfer. Foreign direct investment itself is an international capital flow, in which companies from one country establish and expand their business to other countries. The following is a condition for the development of foreign direct investment or what is commonly referred to as foreign direct investment (FDI) in Indonesia:

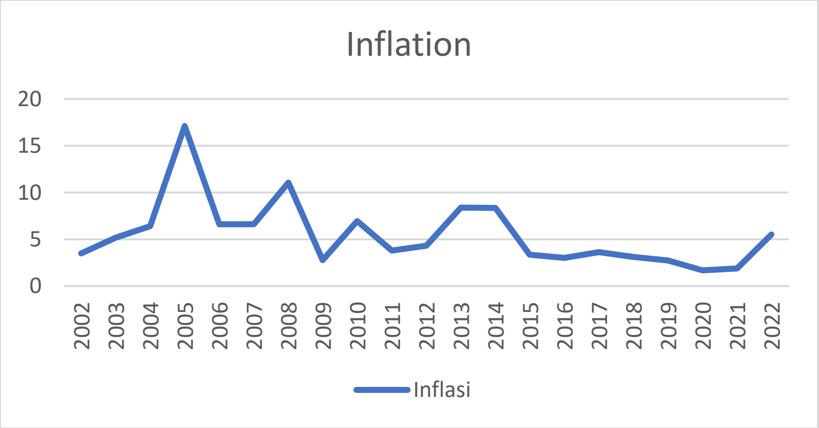
FDI in Indonesia year 2000-2019



Source: BKPM (processed), 2022

Based on data sourced from the Investment Coordinating Board (BKPM) in chart 2.2 above, it can be seen that foreign direct investment (FDI) in Indonesia has fluctuated in the last 20 years and has tended to increase from 2009 to 2019. In 2009 FDI experienced a quite drastic decrease due to the impact of the global financial crisis that occurred in 2008. Where the level of FDI decreased from Rp. 162.8 trillion to Rp. 101.6 trillion. This significant decrease occurred due to the global financial crisis that occurred in 2008 which caused inflation and interest rates in Indonesia to increase, and weakened the exchange rate. This has discouraged investors from investing in Indonesia. Inflation occurs when there is a general increase in prices and occurs continuously. Therefore, unless an increase in the price of these goods causes an increase in the price of other goods in general, it cannot be considered inflation when an increase in the price of one item does not affect the price of other goods (Rahmawati, 2022). Bank Indonesia (2018) states that unstable inflation will create uncertainty for economic actors in making decisions, which will ultimately reduce economic growth.

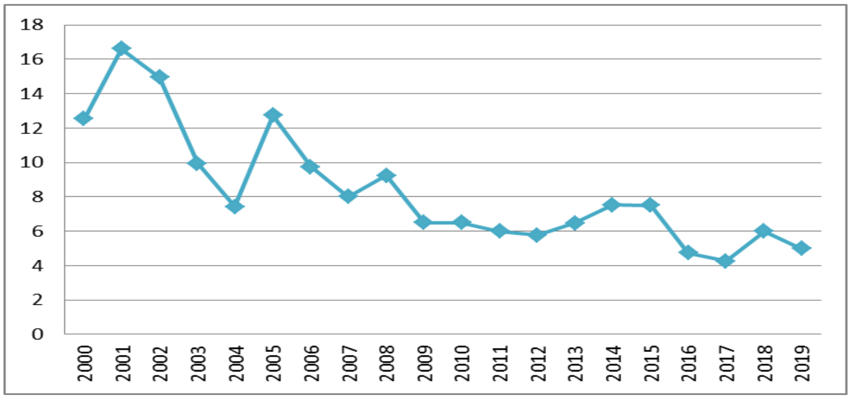
Inflation in Indonesia in 2000-2019



Source: Bank Indonesia (processed), 2022

This is in accordance with the opinion of Case and Fair (2017) that there is a reciprocal relationship between the level of investment and the interest rate. Where when interest rates decrease, the level of investment will increase. Vice versa, if interest rates increase, investment will decrease. In Indonesia, the condition for the development of interest rates has fluctuated from year to year from the beginning of 2000 to the end of 2019. This fluctuation occurred due to policies carried out by banks. Indonesia by considering economic conditions Indonesia and the global economic market.

Interest Rates in Indonesia in 2000—2019



Sumber: Bank Indonesia (processed), 2022

It can be seen in graph 1.3, interest rates began to decrease from 2002 to 2004 by 14.94% in 2022, to 9.94% in 2003 and 7.74% in 2004. Although it eventually returned to a fairly high increase in 2005 it was 12.75%, this happened because inflation in that year increased to 14% as a result of the increase in fuel prices at that time. Even so, interest rates fluctuated again and tended to fall in the following years until they finally reached a stable value in 2009 to 2013, before finally decreasing again until the end of 2019.

Even though at that time the Indonesian economy was experiencing a collapse, at which time the rupiah exchange rate was depreciating, there was a high inflation rate, high interest rates, increasing imports and weakening imports, social, political and economic instability, so that the government sought help. finance from the international monetary fund (IMF). In fact, Indonesia's current economic condition has gradually recovered and has begun to experience quite significant growth from year to year. Even so, the Indonesian government still has to maintain economic conditions to remain stable and continue to increase going forward by paying attention to existing interest rates in order to increase the attractiveness of investors in investing in Indonesia in order to encourage economic growth and increasing per capita income.

2. Literature Review

Economic growth

Economic growth is an economic problem that occurs in the long term and becomes an important phenomenon experienced by countries in the world. The definition of economic growth is a process of change within a certain period of time from the economic conditions that occur in a country that are continuously moving towards a better condition. (Igma Dharmakarja, 2018). Therefore the economy is said to grow or develop when it occurs real output growth. Another definition states that economic growth occurs when the increase per capita output. Economic growth is often associated with the process of increasing production capacity an economy that is manifested in the form of an increase in national income. There is balance in an economy is one of the targets in the context of improving an economy country (Setyowati & Sari, 2022). Based on Keynesian theory, the economic growth function is used by adding up total household consumption expenditure (C), total investment (I), total government spending (G), and the difference between exports and imports (X-M). In other words, GDP = C+I+G+(X-M). of the four factors are again influenced by various factors, among others influenced by factors such as income levels, price levels, interest rates, inflation rates, money supply, exchange rates.

Inflation

Inflation is an economic event that often occurs even though we never want it to. Milton Friendman said "inflation can happen anywhere and is always a monetary phenomenon" (Mathew Bishop, 2018). It is considered a monetary phenomenon due to a decrease in the value of a monetary unit for a commodity. Keynesian economists believe that inflation can occur independently of monetary conditions. If defined, inflation is an increase in the price of goods and services in general and continuously (Zaini, 2018). Meanwhile, according to Suparmono (2017) inflation is an increase in the price of goods and services, which occurs because demand increases more than the supply of goods on the market. In other words, too much money chasing too few things. Types of goods classified for inflation calculations include the price of goods in the food group, housing group, and clothing group.

Interest Rate

Currently, the reference interest rate in Indonesia is the BI-7 Day Reverse Repo Rate. This interest rate has been effective in Indonesia since August 19 2016, replacing the previous interest rate, namely the BI rate. The existence of this interest rate makes it possible for commercial banks to be able to withdraw funds they have previously deposited at BI within seven days. In other words, the BI-7 Day Reverse Repo Rate is a reference interest rate that has a tenor of seven days and multiples of 7, 14, 21, and so on.

It is called "reverse repo" because in this case, Indonesian banks are considered to be borrowing funds from commercial banks with promises of repayment after 7, 14, 21 days and so on. This reference interest rate is considered more effective compared to the previous BI rate, because the tenor is much shorter than the BI rate tenor, which is 12 months. The BI-7 Day Reverse Repo Rate is also lower than the BI rate. This relates to the principle that the shorter the time period for saving money, the lower the interest rate.

3. Research Methodology

This study uses a quantitative approach to test the hypothesis by looking at the effect of each independent variable on the dependent variable. The data used in this study is in the form of numbers which include data on foreign direct investment (FDI), inflation, interest rates, economic growth (GDP) and per capita income in Indonesia in the time span from 2000-2022. In this study there are 4 research variables, namely economic growth as an intervening variable, per capita income as the dependent variable, foreign direct investment (FDI), inflation, and interest rates as independent variables. Following is a further explanation regarding the operationalization of the variables in this study:

The data analysis technique used in this study is the Simple Multiple Linear Regression analysis method (Ordinary Least Square). To use multiple linear regression analysis to obtain a good model

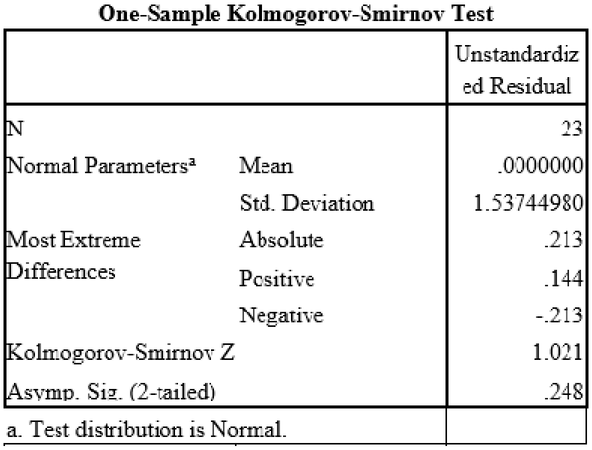
$$\mathbf{EG}\boldsymbol{t} = \boldsymbol{\beta}\mathbf{0} + \boldsymbol{\beta}\mathbf{1}\mathbf{FDI}\boldsymbol{t} + \boldsymbol{\beta}\mathbf{2}\mathbf{I}\boldsymbol{Rt} + \boldsymbol{\beta}\mathbf{3}\mathbf{INF}\boldsymbol{t} \ + \boldsymbol{et}$$

EG	:domestic product (GDP) in Indonesia year 2000-2019 (Rupiah)
FDIt	: Realization of Planting Foreign Capital (PMA) in Indonesia in 2000-2019 (Rupiah)
IRt	: Indonesia's interest rate (%)
INFt	: Continuous price increases within a certain period of time (%)
e	: Error term (error factor)
β0	: Constants
β1, β 2, β3	: Regression coefficient of an independent variable
t	: year t

4. Results

Normality test

Normality test



One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		23
Normal Parameters[a]	Mean	.0000000
	Std. Deviation	1.53744980
Most Extreme Differences	Absolute	.213
	Positive	.144
	Negative	-.213
Kolmogorov-Smirnov Z		1.021
Asymp. Sig. (2-tailed)		.248

a. Test distribution is Normal.

Based on the test results in table above, a significance value of 0.248 was obtained with a significance level of 0.05, so it can be concluded that all data has a normal distribution or has a normal distribution of data.

Multicollinearity Test

Multicollinearity Test

Coefficients[a]

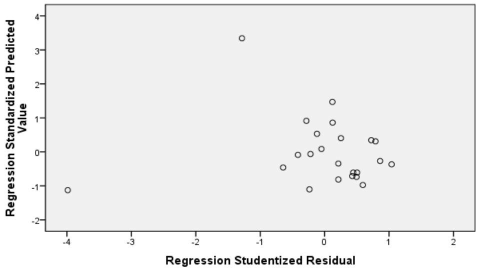
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.349	1.551		2.160	.044		
	FDI	.125	.486	.106	.257	.800	.258	3.883
	Interest Rate	.056	.183	.127	.309	.761	.261	3.834
	Inflation	.156	.163	.323	.956	.351	.384	2.602

a. Dependent Variable: Economic Growth

The multicollinearity test above can be seen that between the independent variables there is no multicollinearity, because the results of calculating the tolerance value of each independent variable show no results less than 0.10 and the results of calculating the variance inflation factor (VIF) value also show no results for each independent variable. which is more than 10. It can be concluded that there is no multicollinearity between the independent variables in this regression model.

Heteroscedasticity Test

Heteroscedasticity Test



The results of the heteroscedasticity test above show that the regression model does not contain any symptoms of heteroscedasticity. It can be seen from the points that spread randomly above and below the number 0 on the Y axis and do not form a certain pattern, so it can be concluded that this regression model has no symptoms of heteroscedasticity.

Ordinary Least Square

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.349	1.551		2.160	.044
	FDI	.125	.486	.106	.257	.800
	Interest Rate	.056	.183	.127	.309	.761
	Inflation	.156	.163	.323	.956	.351

a. Dependent Variable: EconomicGrowth

Based on the multiple linear regression equation above, it is known that the constant value is 3,349, meaning that if the independent variables FDI, interest rates and inflation are considered constant, economic growth can be predicted by 3,349 units. The FDI variable (X1) in the multiple linear regression model has a coefficient value of 0.125, meaning that if the FDI variable value increases by 1 unit and the others are constant, it can be predicted that the economic growth variable value will increase by 0.125 units. The interest rate equivalent level variable (X2) in the multiple linear regression model has a coefficient value of 0.056, meaning that if the interest rate variable value increases by 1 unit and the others are constant, it can be predicted that the economic growth variable value will increase by 0.056 units. Inflation equivalent rate variable (X3) in the multiple linear regression model above the coefficient value of 0.156, meaning that if the value of the inflation variable increases by 1 unit and the others are constant, it can be predicted that the variable value of economic growth will increase by 0.156 units.

The results of the partial test (t) show that FDI has a significance value of 0.800 > 0.05. It can be concluded that FDI has no effect on economic growth. Interest rates have a significance value of 0.761 > 0.05, it can be concluded that interest rates have no effect on economic growth. Inflation has a significance value of 0.351 > 0.05, it can be concluded that inflation has no effect on economic growth. Based on the table above shows that the significance value is less than 0.05 (0.318 > 0.05) and the calculated F value is 1.253, the F table value is 2.49, it can be seen that the calculated F value is greater than the F table value (F calculated 1.253 <F table 2.49) , so it can be concluded that each independent variable simultaneously influences the dependent variable or FDI, interest rates and inflation simultaneously affect economic growth

5. Discussion

Based on the SPSS output results in the partial test, the research on FDI has a significance value of 0.800 > 0.05. It can be concluded that FDI has no effect on economic growth. Interest rates have a significance value of 0.761 > 0.05, it can be concluded that interest rates have no effect on economic growth. Inflation has a significance value of 0.351 > 0.05, it can be concluded that inflation has no effect on economic growth. The results of the simultaneous test produced a significance value of less than 0.05 (0.318 > 0.05) and the calculated F value was 1.253, the F table value was 2.49. It can be seen that the calculated F value is greater than the F table value (F calculated 1.253 <F table 2.49), so that it can be concluded that each independent variable simultaneously influences the dependent variable or FDI, interest rates and inflation do not simultaneously affect economic growth.

The results of this study are in line with research conducted by Kajeng (2018) which states that interest rates and inflation have no effect on economic growth. Research conducted by Martin (2018) states that FDI has no effect on economic growth. Inflation did not have a positive and significant impact on Indonesia's economic growth due to economic and political instability in the 50 years 2000-2020 due to the pandemic, so that excessive government spending caused economic fundamentals to be inconsistent with theory.
The Central Bank of Indonesia, namely Bank Indonesia lowered interest rates. This is done to stimulate people to withdraw their money at the bank and switch to something productive and make the economy stretch. After the economy experienced an increase, banks began to lack funds because the money deposited in the bank was taken and used for other things. Therefore the bank then raised interest rates, and people returned to save their money in the bank. This is then supported by Indonesian descriptive statistical data where despite fluctuations in interest rates, more and more FDI is coming into Indonesia.

Based on the SPSS output results in the partial test, FDI research has a significance value of 0.831 > 0.05. It can be concluded that FDI has no effect on Income Per Kpaita. Interest rates have a significance value of 0.183 > 0.05, it can be concluded that interest rates have no effect on income per kpaita. Inflation has a significance value of 0.734 > 0.05, it can be concluded that inflation has no effect on income per kpaita. The simultaneous test results yielded a significance value of less than 0.05 (0.193 > 0.05) and the calculated F value was 1.253, the F table value was 2.49. It can be seen that the calculated F value is greater than the F table value (F calculated 1.739 <F table 2.49) , so that it can be concluded that each independent variable jointly affects the

dependent variable or FDI, interest rates and inflation do not simultaneously affect income per capita.

6. Conclusion

Based on the discussion in the previous chapter, the conclusions in this study are as follows (1) Foreign direct investment (FDI), interest rates and inflation have no effect on economic growth either simultaneously or partially, because the sig value is > 0.005. (2) Foreign direct investment (FDI), interest rates and inflation have no effect on income per capita either simultaneously or partially, because the sig value is > 0.005.

Based on the above conclusions, the suggestions that will be given in this study are as follows: (1) Based on the adjusted (R) amount of 0.033. This shows that the dependent variable of economic growth can be explained by the independent variables FDI, interest rates, inflation of 3.3%, while 96.7% is influenced by other variables outside of this study. So, the results of the test for the coefficient of determination mean that there are still other independent variables that affect economic growth, for this reason further research is needed. (2) In increasing Indonesia's economic growth, the government must be careful in managing Indonesia's foreign debt so that it does not become a burden that hinders economic growth and the government should maintain inflation stability so that it is not too high or low, because inflation under the right conditions will be able to maintain and improve the economy Indonesia.

References

Fahmi, A. U., & Septiani, Y. (2023). *The Influence Of Gdp , Inflation , And Deposit Rates On Fdi In Indonesia*. *2*(2), 409–423.

Foeh, J., Suryani, N. K., & Silpama, S. (2020). *The Influence Of Inflation Level , Exchange Rate And Gross Domestic Product On Foreign Direct Investment In The Asean Countries On 2007 - 2018*. *5*(3), 3–8.

Grace, G. (2019). *Factors Affecting Inward Foreign Direct Investment : Case Of Asean Countries*. 119–132.

Handoyo, R. H. (2018). *The Effects Of Real Gdp, Inflation, Fdi, And Business Regulation To Domestic Investment: A Case Of The Asean 5 In 2003-2012*.

Ha, J., Kose, M., Ohnsorge, F., & Yilmazkuday, H. (2019). Sources Of Inflation: Global And Domestic Drivers. Inflation In Emerging And Developing Economies, World Bank Publications.

Lamah, A., Yanto, H., & Setyadharma, A. (2021). *The Impact Of Consumer Price Index, Foreign Direct Investment, Bank Credit And Labour Force On Economic Growth In Indonesia*. *1*(2), 79–91.

Larasati, Irene S., & Sri Sulasmiyati. (2018). Pengaruh Inflasi, Ekspor, Dan Tenaga Kerja Terhadap Produk Domestik Bruto. Jurnal Administrasi Bisnis Vol. 63, No.1

Mathew Bishop, 2018. Ekonomi Panduan Lengkap Dari A-Z, Yogyakarta: Baca!

Mamingi, N., & Martin, K. (2018). *Foreign Direct Investment And Growth In Developing Countries : Evidence From The Countries Of The Organisation Of Eastern Caribbean States*. *2*(4).

Meftah, S., & Nassour, A. (2019). *Macroeconomic Variables And Foreign Direct Investment*

Inflows In Turkey. *8*(2), 195–206.

Megasari, T. (2021). *The Determinant Of Fdi Inflows In Oic Countries*. *4*(January), 31–50.

No, V., Dadu, E. S. A., & Payu, B. R. (2022). *Available Online At : Https://Www.Scholarzest.Com Driving Factors Foreign Direct Investment In 5 Asean Countries (Malaysia , Thailand ,*. *3*(2).

Pratama Rahardja Dan Mandala Manarung, 2018. Teori Ekonomi Makro Suatu Pengantar Edisi Keempat, (Jakarta: Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia

Prakasa, S., & Wahyu Liana. (2022). Direct Foreign Investment Development From Exchange Rate Andgdp In Asean Plus Three Countries. *International Journal Of Economics, Bussiness And Accounting Research (Ijebar) Page 2*, *2022*(4).

Rahmawati. 2022. Analisis Faktor Yang Mmepengaruhi Foreign Direct Investment Terhadap Pertumbuhan Ekonomi Di Indonesia Tahun 2000-2019. Profit: Jurnal Manajemen, Bisnis Dan Akuntansi Vol.1, No.4 E-Issn: 2963-5292; P-Issn: 2963-4989, Hal 60-77

Suparmono, 2017. Pengantar Ekonomika Makro, (Yogyakarta: Unit Penerbit Dan Percetakan (Upp) Amp Ykpn,),

Setyowati Dan Sari. 2022. Analisis Pengangguran, Pendapatan Perkapita, Dan Ipm Terhadap Pertumbuhan Ekonomi Di Indonesia Tahun 2017-2020. Procedia Of Social Sciences And Humanities Proceedings Of The 1st Senara Issn 2722-0672 (Online),

Wijaya, S., & Dewi, A. K. (2022). *Determinants Of Foreign Direct Investment And Its Implications On Tax Revenue In Indonesia*. *8*(3), 719–733.

Zuhroh, I. (2022). *Global Crisis And Economic Fundamentals : Its Impact On Foreign Direct Investment In Asean Countries*. *17*(1), 91–101

Zaini Ibrahim, 2018. Pengantar Ekonomi Makro Edisi Revisi, (Serang: Lembaga Penelitian Dan Pengabdian Kepada Masyarakat (Lp2m) Iain Sultan Maulana Hasanuddin Banten