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Analysis of Factors Influencing Foreign Direct Investment in Indonesia Using the Dunning Model

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A B S T R A C T

This study aims analyze the factors influencing Foreign Direct Investment in Indonesia using the Dunning Eclectic Theory approach. The independent variables tested include Gross Domestic Product (GDP), exchange rate, trade openness, and infrastructure, with FDI as the dependent variable. A descriptive quantitative method was employed using annual secondary data from 2004 to 2023. The Error Correction Model (ECM) was applied to examine both short-term and long-term effects. The results indicate that in the long term, trade openness and infrastructure have a significant impact on FDI, while GDP and exchange rate are not statistically significant. In the short term, only trade openness significantly affects FDI. Suggest that enhancing international trade and infrastructure development are key to attracting foreign investment into Indonesia.

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INTRODUCTION

Indonesia is a developing country that has become the second-largest destination for foreign investment in Southeast Asia, based on data presented by the World Bank, with FDI inflows amounting to US$22.085 billion. As a developing nation, Indonesia continues to strive for economic development in order to improve the welfare of its people. Economic development is a process undertaken by a country to enhance the standard of living of its citizens (Agus, 2010). To ensure fair and equitable economic growth, Indonesia requires a substantial amount of funding. However, in reality, the country still faces challenges in providing all the necessary sources of financing.

One of the main obstacles is the low level of domestic savings, which is still insufficient to meet the required investment needs. The gap between domestic savings and the investment needed to achieve a certain level of economic growth forces the government to seek alternative sources of financing to cover the shortfall (Anindita et al., 2021). To achieve these goals, foreign direct investment (FDI) plays a crucial role in supporting a country's economic development. FDI is a form of real investment that includes the establishment of companies, the purchase of capital goods, and inventory, in which the investor is directly involved in the management of the company and has control over the investment (Hamdy, 2001).

FDI holds positive potential for Indonesia in utilizing both human and natural resources across all regions of the country. However, FDI inflows in Indonesia are not always stable and are often influenced by various internal and external factors (Mahadiansar et al., 2021). Therefore, Indonesia relies on foreign direct investment as a source of funding to support its economic development. Below is the data on Foreign Direct Investment in Indonesia from 1998 to 2023 :

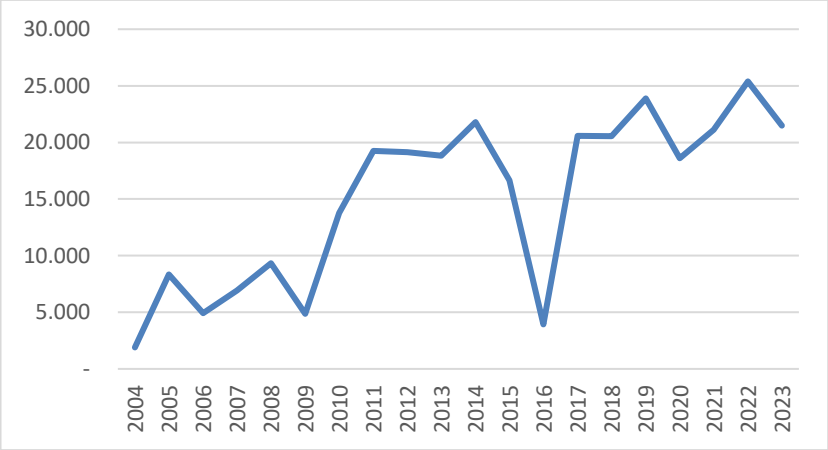

Figure 1. Graph of Development of Foreign Direct Investment 2004-2023 (Million US$)

Based on Figure 1 above, the development of foreign direct investment (FDI) in Indonesia from 2004 to 2023 shows significant fluctuations. At the beginning of the period, in 2004, the FDI value was relatively low at USD 1,896 million. However, this value sharply increased in 2005 to USD 8,336 million, before experiencing a decline and then gradually rising again, reaching USD 21,811 million in 2014. After that, although there were some years of declinesuch

as in 2015 and a sharp drop in 2016 USD 3,921 million the overall FDI trend began to rise again, peaking in 2022 at USD 25,390 million. Nevertheless, in 2023, there was a slight decrease to USD 21,497 million. Overall, the trend of foreign direct investment in Indonesia indicates long-term growth, despite the presence of fluctuations and instability in certain years.

Investment decisions are influenced not only by macroeconomic conditions but also by strategic factors related to competitive advantage, production efficiency, and access to resources and markets. Various theories have been developed to explain the motivations behind foreign investment flows. One of the most well-known is the theory proposed by Dunning, (1988) which states that the motivations behind foreign investors' decisions to invest in a particular country can be grouped into three categories: market seeking, efficiency seeking, and resource seeking.

Based on the three motives mentioned above, several economic variables are considered as factors influencing the inflow of FDI into a country. One of the most important is Gross Domestic Product, which serves as a key indicator affecting FDI. When GDP grows significantly, it indicates a large market potential and a conducive business climate, thereby attracting foreign investors. However, when GDP growth slows down, investor confidence in the country's economic prospects declines, which can ultimately reduce FDI inflows. Indonesia's GDP growth potential can have a significant impact on attracting investment from foreign companies. An increase in GDP reflects economic stability that is capable of encouraging investment inflows (Calivi Kezia Laksmana Putri, 2022).

Another economic factor that plays a crucial role in determining foreign direct investment inflows into a country is the exchange rate. Exchange rate fluctuations affect investment activities, as they make investors more cautious when investing abroad. According to (N. K. Putri et al., 2021) a country's exchange rate also helps investors estimate the returns or profits they can obtain. However, an unstable exchange rate creates uncertainty in costs and the expected returns, making foreign investors hesitant to commit their capital due to the unpredictability of expenses and potential gains from their investments.

Another economic factor that can influence foreign direct investment is trade openness. Trade openness refers to the total value of exports and imports of goods and services measured as a share of GDP. According to (Siti et al., 2024) trade openness reflects how open a country is to the flow of goods, services, and capital from abroad, which ultimately increases its attractiveness as an investment destination. The more open a country is to global trade, the greater its potential to attract foreign direct investment.

In addition to economic factors, the quality of transportation infrastructure such as highways also plays a key role in attracting foreign direct investment, as it directly affects distribution efficiency. The availability of road infrastructure is crucial in drawing FDI because it is closely linked to connectivity. According to Setyadharma & Fadhilah, (2021) roads as part of logistics infrastructure play an essential role in connecting producers and consumers. Roads can enhance efficiency and productivity, thereby increasing the competitiveness of

companies. The quality and availability of transportation infrastructure such as airports, highways, and public transportation in the host country are important factors influencing foreign investors' decision-making when investing.

Based on this background, Foreign Direct Investment is influenced by factors such as gross domestic product, exchange rate, trade openness, and infrastructure. This study aims to analyze the entitled "Analysis of Factors Influencing Foreign Direct Investment in Indonesia Using the Dunning Model".

LITERATURE REVIEW

Investment Theory

Neo-Classical Investment Theory, Classical emphasizes the importance of savings as a source of investment. Investment is seen as one of the main drivers of economic growth and development. The faster the growth of investment compared to the population growth rate, the faster the growth of the average capital stock volume per worker (Arsyad, 2010).

Dunning Eclectic Theory

According to Dunning, in understanding the factors that influence a company's decision to make foreign direct investment. As an effort to combine various perspectives in explaining the motivation of multinational companies in expanding into international markets. there are 3 main characteristics of investors, namely (Ownership Advantages), (Location Advantages), (Internalization Advantages). And Dunning is reduced to three main motives for the reasons that motivate investors to want to invest their capital in the host country, namely Resources Seeking, Market Seeking, Efficiency Seeking (Dunning, 1988).

Harrod Domar Theory

According to Sir Roy Harrod, emphasizing the importance of investment as the main driver of economic growth. In this model, economic growth is seen as the result of capital accumulation through investment, which then increases a country's production capacity. to grow the economy, new investments are needed as additional capital stock (Liana et al., 2024). When FDI increases, the influx of capital from abroad contributes directly to the formation of domestic fixed capital, increasing productivity and production capacity, which in turn drives GDP growth. Conversely, high GDP growth can also be an attraction for foreign investors.

Purchasing Power Parity Theory

According to Gustav Cassel, the exchange rate between two currencies will adjust in such a way that the purchasing power in both countries becomes equal. This means that in the long run, one unit of currency in one country should have the same purchasing power for a number of goods and services that can be purchased in another country, after being converted at the prevailing exchange rate (Ivan Haryanto et al., 2000).

Theory of Comparative Advantage

This theory explains that countries can benefit from international trade if they are efficient in producing goods and services that have a comparative advantage. The theory of comparative advantage says that product specialization in each country increases the volume of trade, and economic openness, which is reflected in international trade, increases a country's welfare (Nuraini, 2019). Trade openness plays an important role in realizing the potential benefits of comparative advantage. When trade barriers such as tariffs and quotas are reduced or eliminated, countries can more easily access foreign markets to sell the products they produce efficiently.

Infrastructure Theory

This theory was put forward by Neils Grigg, emphasizing that adequate infrastructure acts as the main foundation in supporting economic growth and increasing a country's competitiveness (Grigg, 1998). Good infrastructure, such as transportation networks, electricity, clean water, and telecommunications, creates a more efficient and attractive business environment for foreign investors.

Research by (Setyadharma & Fadhilah, 2021), regarding the Analysis of Determinants of FDI Inflows in 7 ASEAN Countries shows that GDP has a positive and significant effect on FDI, Exchange rates and Infrastructure have a negative and significant effect on FDI. In addition, research conducted by (Ng'ang'a, 2022) The Role of Economic Infrastructure and Trade Openness in Attracting Foreign Direct Investment in Developing Countries. In this study, infrastructure and trade openness have a positive and significant relationship with foreign direct investment.

H1 : It is suspected that Gross Domestic Product has an impact on Foreign Direct Investment in the long term and short term.

H2 : It is suspected that the exchange rate has an impact on foreign direct investment in the long term and short term.

H3 : It is suspected that Trade Openness has an impact on Foreign Direct Investment in the long term and short term..

H4: It is suspected that infrastructure has an impact on Foreign Direct Investment in the long term and short term.

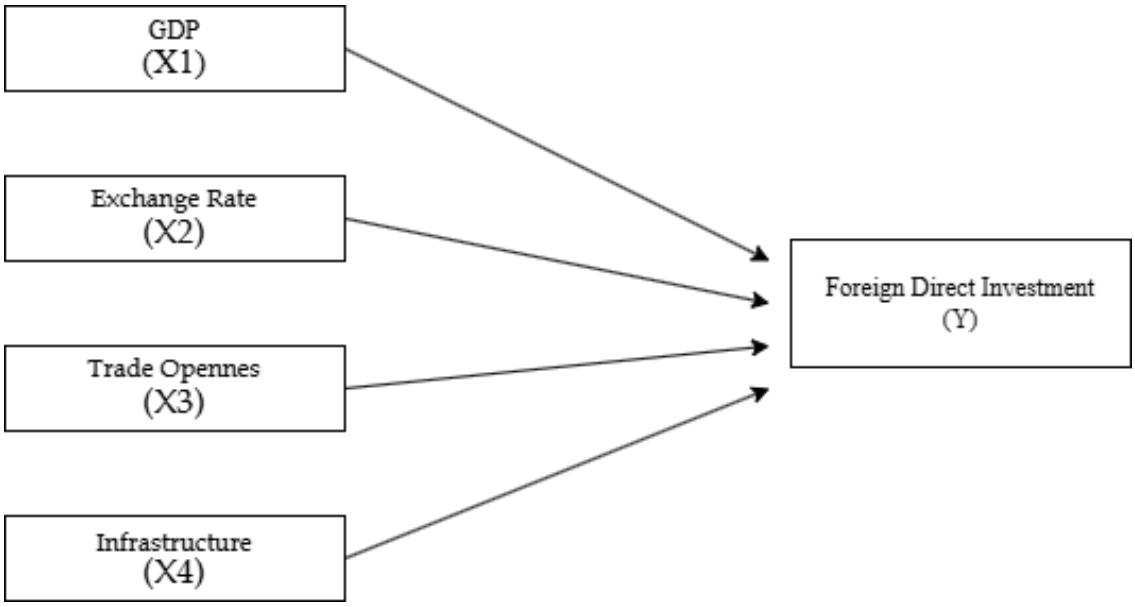

Figure 2. Conceptual Framework

METHODOLOGY

In this study, a quantitative approach was employed. The quantitative method allows researchers to systematically examine a specific population and sample using structured research instruments to ensure the validity and reliability of the data obtained (Sugiyono, 2019).

This research uses a descriptive quantitative approach with secondary data, which includes Gross Domestic Product (GDP), exchange rate, trade openness, and infrastructure as independent variables, and Foreign Direct Investment (FDI) as the dependent variable. The study covers the period from 2004 to 2023. The data used in this study were obtained from official sources such as UNCTAD, IMF, World Bank, and ASEAN Data Stat.

The analytical method used in this study is a quantitative method. Specifically, the Error Correction Model (ECM) was applied to analyze the data. The ECM is used to determine the influence of the independent variables on the dependent variable over both the short-term and long-term periods.

RESEARCH RESULT

ECM

Unit Root Test

Table 1. Unit Root Test Results

ADF	Level	
	T-Stat	Prob
FDI	-2.406783	0.1530
GDP	0.758939	0.9902
Exchange Rate	-0.256435	0.9148
Trade Opennes	-1.773692	0.3810

Infrastructure	-7.112722	0.0000

Source: Eviews, 2025

From the test results table, there are four non-stationary variables at the data level because they are greater than the significance level of α = 5% (0.05), so the four variables are declared non-stationary at the level. However, the infrastructure variable passes at the level, so it is necessary to conduct a degree of integration test.

Degree of Integration Test

Table 2. Results of the Degree of Integration Test

ADF	First Difference	
	T-Stat	Prob
FDI	-5.910103	0.0002
GDP	-3.759392	0.0102
Exchange Rate	-3.398108	0.0251
Trade Opennes	-5.306274	0.0006
Infrastructure	-3.065355	0.0477

Source: Eviews, 2025

In the unit root test, there are several variables that are not stationary at the level level. However, when the degree of integration test is carried out, all variables become stationary at the first differentiation. This is indicated by the probability value of each variable in the differenced series which is below the 5% significance level.

Cointegration Test

Table 3. Cointegration Test Results

variabel	ADF t-Statistic values	Critical Values of Mc. Kinnon			Prob	Information
		1%	5%	10%		
Residual	-4.853975	-3,831511	-3,029970	-2,655194	0,0012	Stasions

Source: Eviews, 2025

Based on the results of the cointegration test using the Augmented Dickey-Fuller method, it is known that the residual is already stationary at the initial level. This is indicated by the absolute value of ADF of -4.854035 which is greater than the MacKinnon critical value at each α 1% = -3.831511, α 5% = -3.029970 and α 10% = -2.655194. Thus, with the cointegration between the variables in the

model, it can be interpreted that the independent and dependent variables are interconnected in the long term and the analysis can continue to short-term calculations.

Long-Term Regression

Table 4. Long-Term Regression Results

Variabel	Coefficient	Std.error	t-statistic	prob
C	-97665,65	28999,01	-3.367934	0.0042
GDP	0.003516	0.001704	2,063723	0.0568
Exchange Rate	-1,611821	1,059867	-1,520776	0,1491
Trade Opennes	837,8689	235,5674	3,556811	0,0029
Infrastructure	0,128230	0,049821	2,573831	0,0212

Source: Eviews, 2025

Referring to the regression equation, the interpretation of the coefficients is as follows:

β_0 = The constant value of -97,665.65 indicates that when the variables GDP, Exchange Rate, Trade Openness, and Infrastructure are held constant, the level of Foreign Direct Investment (FDI) would be -97,665.65 million dollars.

β_1 = The regression coefficient for the Gross Domestic Product (GDP) variable is 3.51, indicating a positive impact on Foreign Direct Investment. For every increase of 1 billion dollars in GDP, the amount of FDI inflow is expected to increase by approximately 0.0000351 million dollars.

β_2 = The regression coefficient for the Exchange Rate variable is -1.6118, indicating a negative effect on Foreign Direct Investment. This means that for every increase of 1 rupiah per dollar in the exchange rate, Foreign Direct Investment is expected to decrease by approximately 1.6118 million dollars.

β_3 = The regression coefficient for the Trade Openness variable is 837.86, suggesting a positive impact of trade openness on FDI inflows. In other words, for every 1% increase in the trade openness index, the value of incoming foreign investment is estimated to increase by around 837.86 million dollars.

β_4 = The regression coefficient of 0.1282 for the infrastructure variable indicates a positive influence on Foreign Direct Investment. For every 1-kilometer increase in road infrastructure, FDI is expected to rise by approximately 0.1282 million dollars.

Short-Term Regression

Table 5. Short-Term Regression Results

Variabel	Coefficient	Std.error	t-statistic	prob
C	4325,232	2173,571	1,989920	0,0681

D(GDP)	-0.005268	0.004569	-1,153005	0,2697
D(Exchange Rate)	-0,421734	0,907766	-0.464584	0,6500
D(Trade Opennes)	746.8429	164,5859	4,537708	0,0006
D(Infrastructure)	-0,006467	0,077965	-0,082950	0,9352
ECT(-1)	-1.442377	0.244491	-5.899512	0,0001

Source: Eviews, 2025

Referring to the regression equation, the interpretation of the coefficients is as follows:

β_0 = The constant value of 4,325.20 indicates that if variables such as GDP, exchange rate, and trade openness change, while infrastructure remains unchanged, Foreign Direct Investment (FDI) is estimated to increase by 4,325.20 million dollars.

β_1 = The regression coefficient associated with the Gross Domestic Product (GDP) variable is -5.26, indicating a negative impact on Foreign Direct Investment. For every increase of 1 billion dollars in GDP, there is a decrease in FDI of approximately 5.26 million dollars. This suggests that when one variable increases, the other tends to decrease.

β_2 = The regression coefficient for the Exchange Rate variable is -0.4217, also indicating a negative impact on FDI. This means that for every depreciation of 1 rupiah per dollar (in other words, an increase in the exchange rate), FDI tends to decrease by around 0.4217 million dollars.

β_3 = The regression coefficient for the Trade Openness variable is 746.83, indicating a positive influence on Foreign Direct Investment. For every 1% increase in trade openness, FDI is expected to rise by approximately 746.83 million dollars.

β_4 = The regression coefficient for the infrastructure variable is -0.0064, indicating a negative effect on FDI. This suggests that for every 1-kilometer increase in road infrastructure, Foreign Direct Investment is estimated to decline by around 0.0064 million dollars.

The Error Correction Term (ECT) coefficient value is 0.0001 < 0.05. This value indicates that the Error Correction Model (ECM) used is valid.

Classical Assumption Test

Multicollinearity Test

Table 6. Multicollinearity Test Results

Variabel	Centered Vif	Information
D(GDP)	1,230512	Multicolia-free
D(Exchange Rate)	1,440684	Multicolia-free
D(Trade Opennes)	1,471871	Multicolia-free

D(Infrastructure)	1,207165	Multicolia-free
ECT(-1)	1,188608	Multicolia-free

Source: Eviews, 2025

It can be concluded that D(GDP) has a nominal VIF of 1.230512, D (Exchange Rate) has a nominal VIF of 1.440684, D (Trade Openness) has a nominal VIF of 1.471871, D(Infrastructure) has a nominal VIF of 1.207165, so that all independent variables are free from multicollinearity.

Heteroscedasticity Test

Table 7. Heteroscedasticity Test Results

F-statistic	1,339312	**Prob. F(5,13)**	0,3084
Obs*R-squared	6.459738	**Prob. Chi-Square(5)**	0,2640
Scaled explained SS	5.796779	**Prob. Chi-Square(5)**	0,3265

Source: Eviews, 2025

The results of the heteroscedasticity test show that the Chi-Square probability value is 0.2640, which means it is greater than 0.05. This result indicates that the data has met the requirements of the heteroscedasticity test and does not contain symptoms of residual variance deviation.

Autocorrelation Test

Table 8. Autocorrelation Test Results

F-statistic	1,457076	**Prob. F(2,11)**	0,2746
Obs R-squared	3,979322	**Prob. Chi-Square(2)**	0,1367

Source: Eviews, 2025

The Chi-Square probability value of the autocorrelation test is 0.1367, which is greater than 0.05. This means that the model's assumption of the autocorrelation test has been met or the model does not experience autocorrelation symptoms.

Normality Test

Table 9. Normality Test Results

Probability	Information
0,440388	Normal

Source: Eviews, 2025

The Jarque-Bera probability value is 0.440388, which is greater than 0.05. This indicates that the data in this study are normally distributed.

Hypothesis Test

T Test

Table 10. T Test Results

Variabel	long-term		Short-term	
	T Statistic	Prob	T Statistic	Prob
GDP	2,063726	0,0568	-1,153005	0,2697
Exchange Rate	-1,520776	0,1491	-0.464584	0,6500
Trade Opennes	3,556811	0,0029	4,537708	0,0006
Infrastructure	2,573831	0,0212	-0,082950	0,9352

Source: Eviews, 2025

long-term

1) Based on the long-term test results, the Gross Domestic Product (GDP) variable shows a t-statistic value of 2.063726 with a probability value of 0.0568, which is higher than the 0.05 significance level. In other words, GDP has not been proven to have a significant effect on Foreign Direct Investment (FDI) inflows.
2) Based on the long-term test results for the Exchange Rate variable, the calculated t-value is -1.520776 with a probability of 0.1491, which is also higher than the 0.05 significance level. This means that the exchange rate has not been proven to have a significant impact on foreign direct investment in the long run.
3) From the long-term test results for the Trade Openness variable, the calculated t-value is 3.556811 with a probability value of only 0.0029, which is less than 0.05. This indicates that Trade Openness has a significant effect on the inflow of Foreign Direct Investment.
4) Based on the long-term test results for the infrastructure variable, the calculated t-value is 2.573831 with a probability of 0.0212. Since this value is below the 0.05 significance level, it can be concluded that infrastructure has a significant influence on the amount of foreign direct investment entering Indonesia.

Short-term

1) The short-term test results for the GDP variable show a t-statistic value of -1.153005 with a probability level of 0.2697, which is still higher than the 0.05 significance threshold. In the short term, GDP has not shown a meaningful influence on the inflow of Foreign Direct Investment (FDI).
2) Based on the short-term test results for the Exchange Rate variable, the calculated t-value is -0.464584 with a probability of 0.6500, which is greater than the 0.05 significance level. In the short term, changes in the exchange rate

do not have a significant impact on the inflow of Foreign Direct Investment into Indonesia.

3) The short-term test results for the Trade Openness variable show a t-statistic value of 4.537708 with a probability level of 0.0006, which is far below 0.05. In the short term, trade openness is proven to have a significant effect on the inflow of Foreign Direct Investment into Indonesia.
4) Based on the short-term test results for the infrastructure variable, the t-statistic value is -0.082950 with a probability of 0.9352, which is clearly greater than 0.05. In the short term, the infrastructure variable does not have a significant influence on Foreign Direct Investment.

F Test

Table 11. F Test Results

Long-term		Short-term	
F Statistic	Prob	F Statistic	Prob
16,12415	0,000026	12,94822	0,000115

Source: Eviews, 2025

Long-term model, the F-statistic value is recorded at 16.12415 with a probability value of 0.00026, which means far below the significant limit of 0.05. This shows that overall, variables such as Gross Domestic Product (GDP), exchange rate, trade openness, and infrastructure do have a significant influence together on the amount of Foreign Direct Investment entering Indonesia.

The short-term model obtained an F-statistic value of 12.94822 with a probability level of 0.000115, which is far below the significance limit of 0.05. This means that overall, variables such as GDP, exchange rates, trade openness, and infrastructure together really have a significant influence on the entry of Foreign Direct Investment into Indonesia.

Test of Determination Coefficient

Table 12. Results of the Determination Coefficient Test

R Squared	
Long-term	0,760996
short-term	0,768462

Source: Eviews, 2025

For the long term, the adjusted R^2 value of 0.760996 indicates that around 76.09% of the changes that occur in the dependent variable can be explained by the independent variables used in this model. Meanwhile, around 23.91% of the rest is influenced by other factors outside the scope of the study.

For the short term, the adjusted R^2 value obtained is 0.768462, which means that around 76.86% of the variation in the dependent variable can also be

explained by the independent variables in the model. While the rest, which is around 23.14%, is caused by other things outside the analysis carried out in this study.

DISCUSSION

The Influence of Gross Domestic Product on Foreign Direct Investment

ased on the estimation results of the ECM model, through partial testing in both the long and short term, it is evident that the Gross Domestic Product (GDP) variable does not have a significant effect on Foreign Direct Investment (FDI). This result is not in line with the Harrod-Domar theory, which suggests that an increase in GDP—reflecting a country's economic growth—should have a positive impact on investment, including foreign direct investment. This theory is based on the assumption that GDP growth indicates increased economic activity, macroeconomic stability, and a larger market potential for goods and services.

The economic growth reflected by the rise in GDP has not yet become a key factor driving foreign investment into the country. One possible explanation is that foreign investors do not base their investment decisions solely on the size of GDP, but rather place more emphasis on other factors such as ease of doing business, political and legal stability, regulatory certainty, and bureaucratic efficiency.

These estimation findings are supported by research conducted by (Halim, 2024) which states that although GDP is often considered an indicator of a country's total output and reflects economic growth, foreign investors do not rely solely on GDP as their main reference. Other factors such as the investment climate, ease of licensing, national security conditions, and the quality of public infrastructure are more prominent considerations in foreign investment decisions. If a country's investment climate is not conducive, even a high GDP may not be sufficient to attract foreign investors.

The Influence of Exchange Rates on Foreign Direct Investment

Based on the estimation results of the ECM model through partial testing in both the long and short term, the Exchange Rate (currency rate) variable shows no significant effect on Foreign Direct Investment (FDI). This result is not in line with Purchasing Power Parity (PPP) theory, which states that the exchange rate between two currencies will adjust in such a way that goods and services will have the same price in both countries. From this perspective, a depreciation of the exchange rate should make domestic goods and services relatively cheaper for foreign investors, thereby increasing the attractiveness of direct investment in the country.

The fluctuations of the rupiah exchange rate against foreign currencies, particularly the US dollar, do not appear to be a key factor considered by foreign investors when making investment decisions in Indonesia. This also indicates that foreign investors in Indonesia tend to be less sensitive to exchange rate risks when deciding to invest. This could be due to hedging strategies employed by multinational companies, or the perception that the exchange rate was relatively stable during the observed period.

These research findings are consistent with the study conducted by (Handoko et al., 2024) which states that the relationship between the exchange rate and Foreign Direct Investment is highly complex and varied. A strong exchange rate can encourage foreign investment inflows, but in this case, the tendency of the exchange rate to depreciate during the observed period may explain why it had no significant effect on FDI inflows. The effect of exchange rates on FDI depends on many factors, such as government policies, industry structure, and other macroeconomic conditions.

The Impact of Trade Openness on Foreign Direct Investment

Based on the estimation results of the ECM model through partial testing in both the long and short term, the Trade Openness variable has a positive and significant effect on Foreign Direct Investment (FDI) in Indonesia. This finding is consistent with the theory of comparative advantage, which states that a country can gain optimal benefits from international trade by focusing on the production of goods and services in which it has a relative advantage over other countries. In the context of trade openness, the more open a country is to international trade, the greater its opportunity to exploit its comparative advantages.

In the short term, trade openness facilitates investors' access to imported raw materials and the distribution of products to international markets, thereby increasing production and distribution efficiency. In the long term, trade openness fosters a more competitive economic environment, enhances productivity, and supports sustainable economic growth, ultimately strengthening investor confidence to invest in long-term projects.

This research finding is in line with the study conducted by (Pratiwi, 2022) which states that trade openness reflects a reduction in international trade barriers, both tariff and non-tariff, as well as smoother cross-border capital mobility. This provides foreign investors with the opportunity to leverage the host country's comparative advantages and engage in re-exporting to global markets. Thus, greater openness makes a country more attractive as a destination for foreign direct investment.

The Impact of Infrastructure on Foreign Direct Investment

Based on the estimation results of the ECM model through partial testing in the long term, the infrastructure variable has a positive and significant effect on Foreign Direct Investment (FDI) in Indonesia. This finding is in line with infrastructure theory proposed by Neils Grigg, which states that infrastructure is the fundamental foundation supporting economic activity and regional development. This theory explains that infrastructure not only serves as a physical facility but also as a public service system that enhances efficiency and productivity in the economy.

Improvements in road infrastructure directly support the investment climate in Indonesia. The expansion of road length reflects better connectivity and logistical efficiency, which ultimately reduces distribution costs and improves accessibility to markets, raw materials, and labor. This condition is highly relevant in the context of resource-seeking motives among foreign investors. Under the resource-seeking motive, foreign investors tend to look for

locations rich in natural resources or other production inputs such as labor and raw materials, available at relatively low costs.

This research finding is consistent with the study conducted by (Siagian & Srinita, 2024) which states that the increasing development of road infrastructure encourages higher levels of FDI. This is because roads are a crucial component in the production and distribution process of goods. Good road infrastructure facilitates the flow of goods and services, reduces logistics costs, and improves the efficiency of product distribution to consumers.

However, based on short-term estimation results, the Infrastructure variable does not have a significant effect on foreign direct investment in Indonesia. This finding contradicts Neils Grigg's infrastructure theory, which emphasizes that infrastructure is the main foundation of economic development, functioning as a support network for the smooth distribution of goods, services, and the mobility of production factors.

It is known that Indonesia's infrastructure has continued to improve each year, although some years may show slowdowns. Road length, as one of the indicators of physical infrastructure availability, has not yet provided a sufficient boost to attract foreign investor interest in the short term.

In the short term, this aligns with the study conducted by (Wadhwa & Reddy S, 2011) which states that road infrastructure does not show a significant relationship with FDI. This result indicates that the length or coverage of road networks alone is not sufficient to be the main attraction for foreign investors.

CONCLUSIONS AND RECOMMENDATIONS

Based on the test results and data analysis described in the previous findings and discussion, the author can conclude the following:

1. Gross Domestic Product (GDP) does not have a significant effect on Foreign Direct Investment (FDI) in either the long or short term. Although theoretically, GDP is viewed as an important indicator reflecting market potential and profit prospects for investors, the empirical evidence in this study shows that foreign investors tend to consider other aspects such as political stability, ease of doing business, infrastructure quality, and regulatory certainty.
2. The Exchange Rate does not have a significant effect on Foreign Direct Investment (FDI) in both the long and short term. This result indicates that exchange rate fluctuations do not have sufficient power to directly drive FDI inflows, whether during depreciation or appreciation. Thus, the exchange rate is not a primary determinant for foreign investors in allocating their capital to Indonesia, either in the short or long term.
3. Trade Openness has a positive and significant effect on Foreign Direct Investment (FDI) in both the long and short term. The increase in international trade activity, reflected by the ratio of exports and imports to GDP, plays a role in encouraging foreign investment inflows into the country.
4. Infrastructure (Road Length) has a positive and significant effect on Foreign Direct Investment (FDI) in the long term, but no significant effect in the short term. This indicates that continuous development and improvement of road

infrastructure can create greater investment appeal over time, as investors tend to consider adequate infrastructure availability as a key supporting factor in long-term investment decisions. However, in the short term, the estimation results show that road length does not significantly affect FDI. This reflects that short-term changes in infrastructure are not yet capable of directly impacting foreign investment inflows, as investment planning and realization typically require time and take into account many other factors beyond the immediate availability of infrastructure.

ADVANCED RESEARCH

Based on these findings, the following policy recommendations can be implemented to attract foreign direct investment (FDI):

1. High economic growth must be accompanied by improvements in the investment climate, such as enhancing legal certainty, simplifying regulations, increasing bureaucratic transparency, strengthening infrastructure, and maintaining macroeconomic stability.
2. Monetary authorities should implement an exchange rate policy that is flexible yet well-managed. In addition, strengthening coordination between fiscal and monetary policies is crucial to maintaining a positive perception of the national economy in the eyes of foreign investors, even though the exchange rate is not the primary factor in investment decisions.
3. Maintaining stable export-import regulations, simplifying cross-border trade procedures, and expanding access to international markets through bilateral and multilateral cooperation are essential. Furthermore, improving the quality and efficiency of trade processes should also be a priority to support the smooth flow of goods and services.
4. Developing and expanding road infrastructure evenly and sustainably should be part of a long-term strategy to attract foreign direct investment to Indonesia. Moreover, infrastructure planning must be integrated with investment policies to ensure that road development genuinely supports accessibility, distribution efficiency, and interregional connectivity, which are key factors for attracting foreign investors.

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For further research, it is recommended to consider additional relevant variables, and use more diverse research methods to obtain a more comprehensive understanding. Research can also be focused specifically on certain areas to obtain a more in-depth picture.

REFERENCES

Agus, S. (2010). *Dimensi-Dimensi Prima Teori Pembangunan*. Universitas Brawijaya Press.

Anindita, F., Marbun, J., & Supriyadi, A. (2021). Pengaruh Produk Domestik Bruto, Nilai Ekspor, Dan Inflasi Terhadap Investasi Asing Langsung Di Indonesia Pada Tahun 2010-2019. *Account*, *8*(1), 1455–1462. https://doi.org/10.32722/acc.v8i1.3878

Arsyad, L. (2010). *Ekonomi Pembangunan*. UPP STIM YKPN.

Dunning, J. H. (1988). The Eclectic Paradigm of International Production: A Restatement and Some Possible Extensions. *Journal of International Business Studies*, *19*(1), 1–31. https://doi.org/10.1057/palgrave.jibs.8490372

Grigg, N. S. (1998). *Infrastructure Engineering and Management*. John Wiley& Sons.

Halim, A. (2024). Pengaruh Inflasi, PDB, ROA Perusahaan Sektor Pertanian, Kehutanan, Perikanan Terdaftar di BEI Terhadap Investasi Asing Langsung di Indonesia Periode 2008-2022. *Socius: Jurnal Penelitian Ilmu-Ilmu Sosial*, *2*(1), 144–155.

Hamdy, H. (2001). *Teori Dan Kebijakan Keuangan Internasional*. Ghalia Indonesia.

Handoko, B. Y., Utomo, Y. P., & Tukar, N. (2024). *ANALISIS FAKTOR-FAKTOR YANG MEMPENGARUHI FOREIGN DIRECT INVESTMENT DI NEGARA ASEAN PERIODE TAHUN 2018-2022 ANALYSIS OF FACTORS INFLUENCING FOREIGN DIRECT INVESTMENT IN*. *X*(1), 22–30.

Ivan Haryanto, Wang Sutrisno, & Diana Wibisono. (2000). Penentuan Nilai Tukar Mata Uang Asing Dengan Menerapkan Konsep Paritas Daya Beli. *Jurnal Manajemen Dan Kewirausahaan*, *2*(2), pp.14-28. http://puslit2.petra.ac.id/ejournal/index.php/man/article/view/15600

Mahadiansar, M., Setiawan, R., Darmawan, E., & Kurnianingsih, F. (2021). Realitas Perkembangan Investasi Asing Langsung di Indonesia Tahun 2019. *Matra Pembaruan*, *5*(1), 65–75. https://doi.org/10.21787/mp.5.1.2021.65-75

Ng'ang'a, P. (2022). The Role of Economic Infrastructure and Trade Openness in Attracting Foreign Direct Investment in Developing Countries. *International Journal of Advanced Research*, *5*(1), 104–116. https://doi.org/10.37284/ijar.5.1.748

Pratiwi, D. R. (2022). Analisis Faktor Determinasi Penanaman Modal Asing (Pma) Langsung Di Asean. *Jurnal Budget : Isu Dan Masalah Keuangan Negara*, *5*(1), 47–66. https://doi.org/10.22212/jbudget.v5i1.38

Setyadharma, A., & Fadhilah, S. N. (2021). Determinants of Foreign Direct Investment Inflows in Seven ASEAN Countries During the Period of 2010-2017: Dunning Model Approach. *Jurnal Ekonomi Pembangunan: Kajian Masalah Ekonomi Dan Pembangunan*, *22*(1), 1–11. https://doi.org/10.23917/jep.v22i1.11180

Siagian, M. H., & Srinita, S. (2024). *PENGARUH PEMBANGUNAN INFRASTRUKTUR JALAN, LISTRIK DAN AIR TERHADAP PENANAMAN MODAL ASING DI KABUPATEN DELI SERDANG*. *9*(2), 126–134.

Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Alfabeta.

Wadhwa, K., & Reddy S, S. (2011). Foreign Direct Investment into Developing Asian Countries: The Role of Market Seeking, Resource Seeking and Efficiency Seeking Factors. *International Journal of Business and Management*, *6*(11), 219–226. https://doi.org/10.5539/ijbm.v6n11p219