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## THE INFLUENCE OF FOREIGN DIRECT INVESTMENT, GOVERNMENT EXPENDITURE, TRADE, AND INFLATION ON ECONOMIC GROWTH IN INDONESIA

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#### Abstract:

This study analyzes the influence of Foreign Direct Investment (FDI), Government Expenditure, Trade Openness, and Inflation on Indonesia's economic growth during the 1980–2024 period. Using a quantitative descriptive approach, annual secondary data from the World Bank's World Development Indicators were analyzed through the Error Correction Model (ECM). The results show that simultaneously, all four macroeconomic variables significantly affect Indonesia's economic growth, supported by an Adjusted R<sup>2</sup> value of 76.17%, indicating the model effectively explains both short-term and long-term relationships. Partially, FDI has a positive but insignificant effect, suggesting that foreign investment has not yet served as a consistent growth driver due to structural and absorptive capacity constraints. Government Expenditure shows a negative and significant effect in both the short and long term, implying that inefficient or consumption-oriented spending tends to suppress growth. Trade Openness has an insignificant impact, reflecting that Indonesia's import-dependent trade structure limits its contribution to sustainable growth. Inflation demonstrates a negative and significant effect, indicating that price instability erodes purchasing power and weakens economic performance. These findings highlight that Indonesia's economic growth remains sensitive to fiscal inefficiency and inflationary pressures while benefiting less from trade and investment liberalization. Therefore, policy reforms are required to direct FDI toward productive sectors, improve the efficiency of public spending, strengthen export competitiveness, and maintain stable inflation. Reinforcing an integrated macroeconomic policy framework coordinating fiscal, monetary, investment, and trade strategies as outlined in the RPJMN 2020–2024 is essential to achieve sustainable and inclusive economic growth.

**Keywords:** Foreign Direct Investment, Government Expenditure, Economic Openness, Inflation, Economic Growth, Indonesia

## INTRODUCTION

Indonesia's economic growth has experienced substantial fluctuations over the past three decades, reflecting the challenges and opportunities of a developing economy integrating into global markets. Although inflows of Foreign Direct Investment (FDI) have generally increased, government spending has continued to rise, and trade openness has expanded through regional and multilateral agreements, the national economy has not consistently achieved the desired growth trajectory. According to the World Bank (2025), Indonesia's GDP growth rate contracted by –2.07% in 2020 due to the COVID-19 pandemic shock and only recovered to around 5% in the 2022 to 2024 period despite large fiscal stimulus and sustained FDI inflows targeting strategic sectors such as digital industries and logistics. This inconsistency raises questions regarding the effectiveness of



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these key macroeconomic variables, such as FDI, government expenditure, economic openness, and inflation, in driving sustainable growth (Thawley, Crystallin, & Verico, 2024).

FDI has long been identified as a critical driver of economic development, particularly in capital-scarce developing countries. Sornarajah (2021) defines FDI as the transfer of tangible and intangible assets from one country to another under the partial or full control of the investor. Beyond its financial component, FDI fosters growth by enabling technology transfer, managerial know-how, employment creation, and productivity enhancement in strategic domestic sectors (Cao, Shah, & Bifei, 2021). In the Harrod–Domar growth framework, external capital such as FDI helps close the domestic saving and investment gap, which often constrains the growth potential of developing economies (Dumo et al., 2023). Parallel to the role of FDI, government expenditure acts as a key fiscal instrument to stimulate economic activity. According to Sukirno (2004), in Sitaniapessy (2013), government spending encompasses all state outlays to provide goods and services for public needs and to ensure the smooth functioning of economic administration. In Keynesian theory, an increase in public spending can raise aggregate demand and accelerate output growth, particularly during recessions (Chu, Hölscher, & McCarthy, 2019). The composition of spending, whether allocated to productive investment such as infrastructure or to current welfare programs, determines the long-run growth effect (Tamai & Wang, 2025). Another determinant, economic openness, is frequently measured by the trade-to-GDP ratio, reflecting the degree to which a domestic economy integrates with international trade flows (Nopirin, 1985, in Adji & Yasa, 2022). A higher degree of openness often facilitates resource reallocation, economies of scale, technological diffusion, and productivity improvements, thereby contributing to sustained growth (Kong et al., 2021).

However, openness also exposes domestic industries to external shocks and competitive pressures that may offset its benefits if not managed by supportive policies (Bleaney & Tian, 2023; Gräbner et al., 2020). The role of inflation in growth dynamics is equally complex. Inflation is typically measured by the Consumer Price Index (CPI), which captures the average change in prices of a basket of goods and services consumed by households (Bryan & Cecchetti, 1993). Moderate and stable inflation may stimulate economic activity by encouraging consumption and investment; yet high or volatile inflation erodes purchasing power, introduces uncertainty, and dampens capital accumulation (Ghossoub, 2023; Akinsola & Odhiambo, 2017). Empirical studies on Indonesia have shown mixed and sometimes contradictory evidence. Hidayat et al. (2024) reported that FDI, government expenditure, and economic openness exert a significant positive impact on GDP growth, whereas inflation was found to be insignificant during their sample period. Millia et al. (2023) further showed that FDI tends to produce stronger positive effects on growth in the short term rather than in the long run, suggesting that the timing and sectoral allocation of investment matter. Conversely, Triatmanto et al. (2023) identified negative effects of FDI and external debt on GDP when combined with human-capital constraints in a panel of Southeast Asian countries. These divergent findings underscore the importance of contextual factors such as macroeconomic stability, sectoral composition, and policy frameworks.

Based on these varying results, there exists a research gap regarding the simultaneous and long-term impact of FDI, government expenditure, economic openness, and inflation on Indonesia's economic growth. Most previous studies either focused on shorter time spans or examined only a subset of these variables, leaving their combined and interactive effects insufficiently explored. This study addresses the gap by extending the observation period to 1980–2024, thus capturing a broader range of economic conditions, including the Asian Financial Crisis in 1998, the subsequent recovery, the global financial crisis, and the COVID-19 pandemic. By covering this extended period, the study



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aims to provide a comprehensive and updated empirical assessment of how these four macroeconomic variables influence Indonesia's growth trajectory both individually and collectively.

## METHODS

This study uses a quantitative descriptive approach to analyze the influence of Foreign Direct Investment (FDI), Government Expenditure (GE), Economic Openness (EO), and Inflation (CPI) on Indonesia's economic growth during the 1980–2024 period. This approach was chosen because it provides an objective and measurable picture of the phenomenon studied through statistical analysis, while simultaneously describing the conditions numerically and in a structured manner (Sugiyono, 2013).

This study uses secondary annual time-series data for Indonesia covering the period 1980–2024, obtained entirely from the World Bank's World Development Indicators (WDI) database. All variables are expressed in percentage (%) terms for comparability. The variables include: Economic Growth (Y) measured by the annual GDP growth rate (%); Foreign Direct Investment ( $X_1$ ) as FDI inflows (% of GDP); Government Expenditure ( $X_2$ ) as general government final consumption expenditure (% of GDP); Economic Openness ( $X_3$ ) proxied by trade (% of GDP); and Inflation ( $X_4$ ) measured by the annual percentage change in the Consumer Price Index (CPI). All data are sourced directly from the World Bank (2025) to ensure consistency, reliability, and international comparability.

The analytical method used in this study is the Error Correction Model (ECM). ECM is employed to analyze both the short-term dynamics and long-term equilibrium relationships among variables in a time-series framework. This model explains how deviations from long-run equilibrium are gradually corrected over time through short-run adjustments (Gujarati & Porter, 2009). According to Banerjee, Dolado, and Hendry (1986), and supported by Enns, Moehlecke, and Wlezien (2022), ECM can be applied even when the variables have different orders of integration, for example, when the dependent variable is stationary at level and the independent variables are stationary at first difference, as long as the residuals from the long-run regression are stationary, indicating a balanced equation. The general form of the ECM model is expressed as follows:

$$\Delta Y_t = \alpha_0 + \beta_1 \Delta X_{1t} + \beta_2 \Delta X_{2t} + \beta_3 \Delta X_{3t} + \beta_4 \Delta X_{4t} + \lambda ECT_{t-1} + \varepsilon_t$$

Description:

$\Delta Y$ = Change in Economic Growth (GDP growth rate)

$\alpha$ = Constant

$\beta_1, \beta_2, \beta_3, \beta_4$ = Regression coefficients of each independent variable

$\Delta X_1$ = Change in FDI (Foreign Direct Investment)

$\Delta X_2$ = Change in Government Expenditure

$\Delta X_3$ = Change in Economic Openness

$\Delta X_4$ = Change in Inflation

$ECT_{t-1}$ = Error Correction Term (lagged residual from the long-run equation)

$\lambda$ = Speed of adjustment toward equilibrium (expected to be negative and significant)

$t$ = Year (1980-2024)



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$\varepsilon$ = Error term

The prerequisite tests for the Error Correction Model (ECM) include several stages to ensure the validity and reliability of the time-series data used in this study. The analysis begins with a stationarity test using the Augmented Dickey-Fuller (ADF) or Phillips-Perron (PP) method to determine the order of integration of each variable. The ECM approach requires that the variables are not stationary at the level but become stationary after the first difference, or that the dataset contains a mix of I(0) and I(1) variables. The next step is the cointegration test, conducted through the Engle-Granger two-step procedure, to verify the existence of a long-term equilibrium relationship among the variables by testing the stationarity of the residuals from the long-run regression. If the residuals are stationary, this confirms cointegration and supports the use of ECM. After confirming this, the ECM estimation is performed to capture both the short-term and long-term dynamics. To ensure the robustness of the model, classical assumption tests such as normality, heteroscedasticity, multicollinearity, and autocorrelation tests are also conducted (Sugiyono, 2013; Gujarati & Porter, 2009).

## RESULT AND DISCUSSION

The results of the study present the empirical analysis conducted to examine the relationship between Foreign Direct Investment (FDI), Government Expenditure, Economic Openness, and Inflation on Indonesia's economic growth during the period 1980–2024. The discussion begins with the descriptive statistical analysis to provide an overview of the distribution, central tendency, and variation of each variable used in the study. This initial overview is essential for understanding the basic characteristics of the data before proceeding to the regression analysis and hypothesis testing.

**Table 1.** Descriptive Statistical Analysis

	X1	X2	X3	X4	Y
Mean	1.100.000	8.864.444	5.153.333	8.595.556	4.951.111
Median	1.300.000	9.000.000	5.010.000	6.400.000	5.200.000
Maximum	2.900.000	1.200.000	9.600.000	5.850.000	9.900.000
Minimum	-2.800.000	5.700.000	3.300.000	1.600.000	-1.310.000
Std. Dev.	1.215.618	1.357.330	1.068.627	8.581.692	3.383.491
Skewness	-1.022.412	0.007709	1.623.142	4.537.938	-3.596.610
Kurtosis	4.277.309	2.941.603	8.046.135	2.675.929	1.951.996
Jarque-Bera	1.089.905	0.006840	6.750.344	1.212.891	6.087.219
Probability	0.004298	0.996586	0.000000	0.000000	0.000000
Sum	4.950.000	3.989.000	2.319.000	3.868.000	2.228.000
Sum Sq. Dev	6.502.000	8.106.311	5.024.640	3.240.399	5.037.124
Observations	41	45	45	45	45

Source: Eviews 13, processed

Based on the results of the descriptive statistical analysis presented in Table 1, this study utilizes 45 annual observations for each variable. The dependent variable, Economic Growth (Y), has an average value of 4.95%, with a minimum of -1.31% and a maximum of 9.90%, and a standard deviation of 3.38%, indicating moderate fluctuations in Indonesia's economic growth throughout the observation period. The independent variable Foreign Direct Investment (FDI) (X<sub>1</sub>) records an



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average value of 1.10%, ranging from a minimum of -2.80% to a maximum of 2.90%, with a standard deviation of 1.21%, showing moderate variation and the occurrence of negative inflows in certain years. The variable Government Expenditure ( $X_2$ ) has an average value of 8.86%, with a minimum of 5.70% and a maximum of 12.00%, and a standard deviation of 1.36%, indicating relatively stable fluctuations in Indonesia's fiscal spending. Meanwhile, Trade Openness ( $X_3$ ) shows an average value of 5.15%, with a minimum of 3.30% and a maximum of 9.60%, and a standard deviation of 1.07%, suggesting moderate variations in the country's trade-to-GDP ratio. Finally, Inflation ( $X_4$ ) has an average value of 8.59%, with a minimum of 1.60% and a maximum of 5.85%, and a standard deviation of 8.58%, reflecting relatively high dispersion and unstable price movements during the study period. The Jarque-Bera test results indicate that the probability values for FDI (0.004298), Trade Openness (0.000000), Inflation (0.000000), and Economic Growth (0.000000) are below 0.05, suggesting that these variables are not normally distributed. Meanwhile, Government Expenditure (0.996586) has a probability value above 0.05, indicating that this variable is normally distributed. Nevertheless, as noted by Gujarati and Porter (2009), the assumption of normality is not critical in large-sample time-series data, as the Central Limit Theorem ensures the validity of statistical inference.

#### Root Test.

**Table 2.** Root Test

Variables	Level		First Different		Information
	t-Statistic	Prob*	t-Statistic	Prob*	
Y	-5.094138	0.0001	-7.299278	0.0000	Stationer at the level
X1	-2.529382	0.1156	-6.464497	0.0000	Stationer at first different level
X2	-1.690134	0.4291	-6.271060	0.0000	Stationer at the first different level
X3	-3.047798	0.0382	-9.864100	0.0000	Stationer at the level
X4	-5.108953	0.0001	-8.237515	0.0000	Stationer at the level

Source: Eviews 13, processed

**Table 3.** Residual Stationarity test (Engle-Granger test stage 2)

Variables	Level		First Different		Information
	t-Statistic	Prob*	t-Statistic	Prob*	
Res	-7.923258	0.0000	-10.24513	0.0004	Stationer at the level

Source: Eviews 13, processed

Based on the results of the unit root test presented in Table 2, the dependent variable Economic Growth (Y) is stationary at the level, with a t-statistic value of -5.094138 and a probability of 0.0001 ( $< 0.05$ ). Similarly, the variables Trade Openness ( $X_3$ ) and Inflation ( $X_4$ ) are also stationary at the level, as indicated by their probability values of 0.0382 and 0.0001, respectively. Meanwhile, the variables Foreign Direct Investment (FDI) ( $X_1$ ) and Government Expenditure ( $X_2$ ) become stationary after first differencing, with probability values of 0.0000, showing that both are integrated at order I(1). These results indicate that the data series in this study exhibit mixed levels of integration, where some variables are stationary at level (I(0)) and others at first difference (I(1)). This combination of integration orders suggests the potential for a long-term equilibrium relationship among the variables. To confirm this, a residual stationarity test was performed using the Engle-Granger two-step method, as presented in Table 3. The results show that the residuals from the long-run equation are stationary at the level, with a t-statistic value of -7.923258 and a probability of 0.0000 ( $< 0.05$ ). It



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confirms the existence of cointegration among the variables, meaning that despite differences in stationarity levels, they move together toward a long-run equilibrium.

According to Banerjee, Dolado, and Hendry (1986) in the Journal of Time Series Analysis, the Error Correction Model (ECM) can be applied even when variables have different orders of integration, provided that the residuals from the long-run regression are stationary. They state that “a balanced equation is achieved when the residuals from a linear combination of non-stationary variables are stationary, implying the existence of a cointegrating relationship that justifies an ECM representation.” Similarly, Enns, Moehlecke, and Wlezien (2022) emphasize that “even when variables differ in their orders of integration, the presence of a stationary error term from the equilibrium equation allows for the valid estimation of an error correction model.” Therefore, based on both the empirical findings and theoretical support, this study justifies the use of the Error Correction Model (ECM) without applying the ARDL framework. The stationary residuals confirm the existence of a long-term equilibrium relationship among variables, enabling the model to simultaneously explain both short-term dynamics and long-run adjustments in Indonesia’s economy.

#### Cointegration Test.

**Table 4.** Cointegration Test

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistics	0.05 Critical Value	Prob.** Critical Value
None*	0.809802	1.263.484	6.981.889	0.0000
At most 1*	0.488576	5.498.179	4.785.613	0.0093
At most 2	0.268511	2.614.791	2.979.707	0.1244
At most 3	0.192919	1.270.296	1.549.471	0.1262
At most 4	0.077886	3.486.731	3.841.465	0.0619

Source: Eviews 13, processed

Based on the Johansen cointegration test results presented in Table 4, the Trace Statistic exceeds the 5% critical value at the hypotheses None ( $1,263.484 > 6.981.889$ ;  $p = 0.0000$ ) and At most 1 ( $5,498.179 > 4.785.613$ ;  $p = 0.0093$ ). These findings indicate the presence of at least two cointegrating relationships among the variables, implying a long-run equilibrium between Economic Growth (Y) and its explanatory variables: Foreign Direct Investment ( $X_1$ ), Government Expenditure ( $X_2$ ), Trade Openness ( $X_3$ ), and Inflation ( $X_4$ ). This result confirms that despite differences in the stationarity levels of the variables, there exists a stable long-term relationship connecting them. As noted by Banerjee et al. (1986) and Enns et al. (2022), the Error Correction Model (ECM) remains valid under such mixed stationarity conditions as long as the residuals from the long-run equation are stationary.

Therefore, the presence of cointegration justifies the use of ECM in this study to capture both short-run dynamics and long-run adjustments within Indonesia's macroeconomic framework.

#### Classical Assumption Test.

**Table 5.** Classical Assumption Test

		Long Term	Short Term
Normality Test	Jarque-Bera Probability	0.203619	0.005058
Autocorrelation Test	LM Test	0.1906	0.0048
Heteroscedasticity Test	Breusch Pagan Godfrey	0.8013	0.3418



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Multicollinearity Test	VIF Test	D(X1) = 1.024.795	D(X1) = 1.031.843
		D(X2) = 1.385.451	D(X2) = 1.416.409
		D(X3) = 3.299.254	D(X3) = 3.461.946
		D(X4) = 2.856.487	D(X4) = 2.947.734
			EC(-1) = 1.168.285

Source: Eviews 13, processed

Based on the results of the classical assumption tests presented in Table 5, the long-run model shows that the Jarque–Bera normality test has a probability value of 0.203619 ( $> 0.05$ ), indicating that the residuals are normally distributed. The autocorrelation test (LM Test) also yields a probability of 0.1906 ( $> 0.05$ ), confirming the absence of autocorrelation. Meanwhile, the heteroskedasticity test (Breusch–Pagan–Godfrey) shows a probability value of 0.8013 ( $> 0.05$ ), indicating that the long-run model is free from heteroskedasticity. In contrast, the short-run model shows a Jarque–Bera probability of 0.005058 ( $< 0.05$ ), suggesting that the residuals are not normally distributed. However, according to Gujarati and Porter (2009) in Basic Econometrics, when the data exhibit cointegration – as confirmed by both the Engle–Granger two-step residual test and the Johansen cointegration test – the normality assumption needs to be tested only for the long-run model. It is because the long-run residuals represent the equilibrium relationship among variables, while the short-run residuals only capture temporary adjustments.

Gujarati & Porter (2009, p. 762) state that "In short, provided we check that the residuals from regressions like (21.11.1) are  $I(0)$  or stationary, the traditional regression methodology (including the  $t$  and  $F$  tests) that we have considered extensively is applicable to data involving (nonstationary) time series. The valuable contribution of the concepts of unit root, cointegration, etc. is to force us to find out if the regression residuals are stationary. As Granger notes, 'A test for cointegration can be thought of as a pre-test to avoid 'spurious regression' situations.'" This theoretical argument supports the empirical findings of this study, where the residuals of the long-run model are stationary and normally distributed, confirming the stability of the long-run equilibrium. Furthermore, the Variance Inflation Factor (VIF) test results show that all variables have VIF values below 10 in both the long-run and short-run models, indicating the absence of multicollinearity. Overall, the diagnostic test results validate the reliability of the Error Correction Model (ECM) used in this study. The stationary residuals and cointegration findings confirm the existence of a long-run equilibrium relationship, while the classical assumption tests demonstrate that the long-run model satisfies key econometric requirements for valid inference and interpretation.

### Long Term Test.

**Table 6.** Long-Term Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(X1)	0.526393	0.376550	1.397.937	0.1700
D(X2)	-2.332.790	0.581929	-4.008.718	0.0003
D(X3)	-0.068013	0.063791	-1.066.175	0.2929
D(X4)	-0.311945	0.052276	-5.967.251	0.0000
C	-0.398420	0.325996	-1.222.160	0.2290

Source: Eviews 13, processed

Based on the results presented in Table 6 (Long-Term Test) and Table 7 (Short-Term Test), the estimation shows that in the long run, only X2 (Government Expenditure) has a significant effect on



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Economic Growth (Y), with a probability value of 0.0003 (< 0.05), while the other variables are not significant as their p-values exceed 0.05. It indicates that, in the long term, government expenditure plays a dominant role in influencing Indonesia's economic growth.

#### Short Term Test.

**Table 7. Short Term Test**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(X1)	0.570749	0.372497	1.532.225	0.1340
D(X2)	-2.330.106	0.583411	-3.993.937	0.0003
D(X3)	-0.067310	0.064424	-1.044.804	0.3029
D(X4)	-0.329471	0.052511	-6.274.313	0.0000
EC(-1)	-0.225175	0.170668	-1.319.375	0.1952
C	-0.349404	0.326003	-1.071.781	0.2908

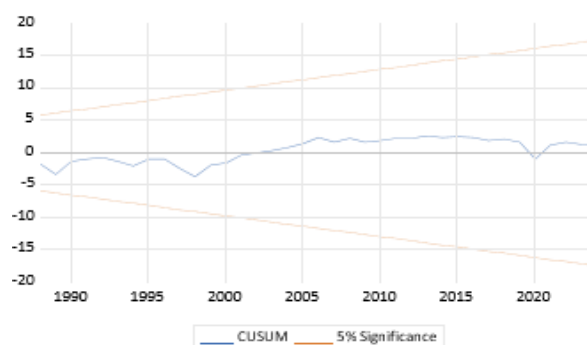
Source: Eviews 13, processed

In the short run (Table 7), the Error Correction Model (ECM) results show that the coefficient of EC(-1) is negative at -0.225175 with a probability value of 0.1952, suggesting the presence of an adjustment mechanism toward long-run equilibrium, although it is not statistically significant. The variable X2 (Government Expenditure) remains significant in the short run ( $p = 0.0003 < 0.05$ ), indicating a direct short-term influence on economic growth, while other variables (X1, X3, and X4) are not statistically significant. These findings are consistent with the cointegration results obtained using the Engle-Granger two-step method, where the residuals are stationary, confirming the existence of a long-run equilibrium relationship among variables. According to Gujarati (2009), once cointegration is established and residuals are stationary, classical assumption tests such as normality and autocorrelation are sufficient to be performed on the long-run model only, since the short-run ECM captures the adjustment dynamics toward long-run equilibrium.

Based on the estimation results presented in Tables 6 and 7, the ECM model for this study is as follows:

$$\Delta Y_t = -0.349404 + 0.570749\Delta X_{1t} - 2.330106\Delta X_{2t} - 0.067310\Delta X_{3t} - 0.329471\Delta X_{4t} - 0.225175ECT_{t-1} + \varepsilon_t$$

#### Stability Diagnostic.



Source: Eviews 13, processed

**Figure 1. Cusum Test**



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Based on Figure 1, which presents the results of the Stability Diagnostics Test using the CUSUM test, it can be observed that the CUSUM line remains within the 5% significance boundaries throughout the observation period. It indicates that the estimated coefficients of the model are stable over time, with no structural changes detected in the relationship between Economic Growth and its explanatory variables. Thus, the model used in this study can be considered stable and reliable for both short-term and long-term estimations.

#### Analysis of the Determination Coefficient (R-Square / R<sup>2</sup>).

Table 8. R-Square / R <sup>2</sup>	
R-squared	0.768523
Adjusted R-squared	0.737243

Source: EvIEWS 13, processed

The purpose of testing the coefficient of determination is to measure how well the regression model explains variations in the dependent variable. The Adjusted R<sup>2</sup> value is considered more appropriate for evaluating the regression model because it adjusts for the number of explanatory variables. Based on the regression results in Table 8, the R-squared value is 0.768523, while the Adjusted R-squared value is 0.737243 or 73.72%. It means that approximately 73.72% of the variation in Economic Growth (Y) can be explained by the independent variables, namely, Foreign.

Direct Investment (X1), Government Expenditure (X2), Economic Openness (X3), and Inflation (X4). Meanwhile, the remaining 26.28% is influenced by other factors outside the regression model. The relatively high Adjusted R<sup>2</sup> value indicates that the ECM model used in the short term has strong explanatory power, suggesting that the selected variables are able to capture most of the variation in Indonesia's economic growth.

**The Effect of Foreign Direct Investment (FDI) (X1) on Indonesia's Economic Growth (Y) 1980– 2024.** Based on the estimation results using the Error Correction Model (ECM), the Foreign Direct Investment (FDI) variable shows a positive but statistically insignificant effect both in the short term and in the long term. It indicates that during the 1980–2024 period, inflows of FDI did not have a statistically significant impact on Indonesia's economic growth, either in short-term dynamics or long-term equilibrium relationships. Economically, this suggests that FDI has not yet been able to serve as a consistent driver of sustainable economic growth. Although FDI contributes to capital accumulation, technology transfer, and job creation, its effect on GDP growth remains limited due to structural constraints, sectoral concentration, and suboptimal spillover effects. This finding is consistent with Millia et al. (2023), who found that the impact of FDI in Indonesia tends to be short-lived and declines over time, and Triatmanto et al. (2023), who revealed that in several ASEAN countries, FDI can even have a negative effect on economic growth if not supported by sufficient technological absorption and domestic productivity. From a theoretical perspective, this result aligns with the Harrod–Domar growth model (1939–1946), which emphasizes that investment is a key factor in driving economic growth. However, the effectiveness of foreign investment depends on the ability of the domestic economy to channel incoming capital into productive sectors. Furthermore, according to Dunning's Eclectic (OLI) Theory (1993), the benefits of FDI are determined by ownership advantages, location advantages, and internalization strategies. In Indonesia's case, weak technological absorption, regulatory barriers, and the dominance of investment in less productive sectors reduce the potential contribution of FDI to economic growth.



Empirically, this result differs from Fazaalloh (2024), who found that FDI positively influences regional economic growth, particularly in the manufacturing and service sectors. The difference may be explained by variations in the research period and the composition of FDI inflows, which in recent years have been concentrated in digital and natural resource sectors with limited multiplier effects on GDP. In conclusion, FDI has not yet become a key driver of Indonesia's economic growth during the research period. To maximize its benefits, it is necessary to improve the quality of investment, strengthen institutional capacity, and redirect foreign investment toward productive and technology-intensive sectors so that the potential gains of FDI, as described in the Harrod-Domar model and Dunning's OLI paradigm, can be fully realized in the Indonesian economy.

#### **The Effect of Government Expenditure (X2) on Indonesia's Economic Growth (Y) 1980–2024.**

Based on the estimation results using the Error Correction Model (ECM), the Government Expenditure variable shows a positive and statistically significant effect both in the short term and in the long term. It indicates that government spending has played an important and consistent role in stimulating Indonesia's economic growth throughout the 1980–2024 period. The significance of this variable in both the short and long term suggests that fiscal policies focused on government expenditure have had a sustained impact on national economic performance. This result implies that increases in government expenditure, particularly when directed toward productive sectors, can boost aggregate demand, improve infrastructure, and support long-term growth through human capital development. The finding aligns with Keynesian economic theory, which posits that public expenditure serves as an essential instrument to stimulate demand and stabilize the economy, especially during periods of economic slowdown.

Furthermore, according to the Endogenous Growth Theory, government expenditure on education, health, and infrastructure enhances productivity and innovation capacity, thus promoting sustainable economic growth. Empirically, these findings are consistent with Abdillah (2023), who stated that Indonesia's fiscal policy remains an important determinant of economic growth, provided that spending is allocated efficiently. Similarly, Maulid et al. (2021) found that productive government expenditure, such as on infrastructure and social investment, significantly contributes to long-term economic performance, whereas inefficient, consumption-oriented spending yields limited effects. Evidence from Chu et al. (2020) and Dudzevičiūtė et al. (2018) also confirms that the growth effect of public expenditure depends on both its composition and efficiency. In the context of Indonesia, the significance of government expenditure in both the short and long term suggests that fiscal policy has been effectively utilized to support macroeconomic stability and growth. However, continued emphasis on improving budget efficiency, transparency, and allocation toward productive sectors, such as infrastructure, education, and health, is essential to maximize the long-term benefits of government spending.

#### **The Effect of Trade Openness (X3) on Indonesia's Economic Growth (Y) 1980–2024.**

Based on the results of the Error Correction Model (ECM) estimation, the Trade Openness variable shows no significant effect on economic growth in either the short term or the long term. It indicates that changes in trade openness do not have a statistically significant impact on Indonesia's economic growth during the 1980–2024 period. This finding suggests that although trade openness can theoretically promote growth through market expansion, increased export opportunities, and technology transfer, in Indonesia's case, the benefits have not been fully realized. It may be due to structural trade imbalances, such as a heavy reliance on imports and limited diversification of export products. As a result, trade liberalization may not have effectively contributed to long-term economic growth.



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These results align with Setiana, Hutagaol, and Novianti (2023) and Irawan et al. (2022), who found that trade openness in Indonesia does not always lead to higher economic growth when the economy is dominated by import dependence rather than export expansion. Conversely, the findings contrast with Hartini, Aulia, and Nasution (2024), who argue that trade openness can positively affect growth through increased efficiency, technology diffusion, and improved competitiveness—consistent with the Neoclassical Growth Theory and New Trade Theory (Krugman, 1990; Mankiw, 2017). From a theoretical standpoint, trade openness should support growth if accompanied by strong industrial capacity, export-oriented production, and innovation. However, the Endogenous Growth Theory highlights that without the ability to absorb technological advances and strengthen domestic industries, openness alone may not yield sustainable growth. In conclusion, although Indonesia has experienced increasing trade openness over the years, the insignificant short- and long-term results indicate that its potential has not been maximized. Strengthening export competitiveness, reducing import dependence, and improving trade policy efficiency are essential steps to ensure that trade openness contributes effectively to Indonesia's long-term economic growth.

**The Effect of Inflation (X4) on Indonesia's Economic Growth (Y) 1980–2024.** Based on the results of the Error Correction Model (ECM) estimation, the Inflation variable shows a negative and significant effect on economic growth in both the short term and the long term. It indicates that inflation has a statistically significant negative effect on Indonesia's economic growth during the 1980–2024 period, meaning that increases in inflation tend to reduce the rate of economic growth. This result suggests that high or unstable inflation undermines Indonesia's economic performance by eroding purchasing power, reducing investment confidence, and creating macroeconomic uncertainty. From a theoretical perspective, this finding aligns with the Classical and Monetarist views (Friedman, 1977), which emphasize that excessive inflation disrupts price stability and lowers real income, thereby slowing economic growth. Similarly, the Keynesian framework also supports that while mild inflation can stimulate spending and production, prolonged high inflation discourages saving and distorts investment decisions. Empirically, these findings are consistent with Wahidin, Khairunnisa, and Wulandari (2022), who found that inflation exerts a negative influence on Indonesia's GDP growth, and with Cili and Alkhalik (2022), who argued that the inflation-growth relationship depends on maintaining inflation below a critical threshold. Moreover, Bahri, Zaenuri, and Mutardho (2024) emphasized that inflation's impact is largely indirect, operating through its effects on consumption and monetary stability (Heykal et al., 2024).

According to the Inflation Threshold Theory (Fischer, 1993), there exists an optimal level of inflation that supports growth, beyond which the effects become detrimental. Indonesia's negative long-term relationship between inflation and economic growth observed in this study indicates that inflation may have exceeded the productive threshold during certain years, thus constraining output expansion. In conclusion, the results highlight that inflation has been one of the key macroeconomic challenges for Indonesia, exerting a persistent negative impact on economic growth in both the short and long run. Therefore, maintaining inflation at a stable and moderate level remains crucial for fostering sustainable economic growth and ensuring macroeconomic stability.

## CONCLUSION

Based on the estimation results using the Error Correction Model (ECM), this study concludes that Foreign Direct Investment (FDI), Government Expenditure, Trade Openness, and Inflation collectively have a significant influence on Indonesia's economic growth throughout the research



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period. The findings indicate that the model used is able to explain the relationship between these macroeconomic variables and the dynamics of Indonesia's economic performance both in the short and long term. Partially, FDI shows a positive but insignificant effect in both the short and long term, suggesting that foreign investment has not yet played a substantial role in driving Indonesia's economic growth. Government Expenditure has a negative and significant effect in both the short and long term, implying that inefficient or excessive spending can hinder growth, in line with the Armey curve hypothesis. Trade Openness exhibits an insignificant influence in both the short and long term, indicating that Indonesia's trade structure, dominated by imports, has limited its contribution to growth. Meanwhile, Inflation demonstrates a negative and significant effect in both the short and long term, confirming that high or unstable inflation undermines economic performance by reducing purchasing power and increasing macroeconomic uncertainty. Overall, these results emphasize the importance of improving the efficiency of government expenditure, directing FDI toward productive sectors, enhancing export competitiveness, and maintaining inflation within a stable range to achieve sustainable and inclusive economic growth in Indonesia.

Recommendations. Based on the findings, it is recommended that the Indonesian government strengthen policies that enhance the quality and effectiveness of economic growth drivers. The findings suggest that Indonesia needs to strengthen an Integrated Macroeconomic Policy for Sustainable Growth as outlined in Law No. 17 of 2003, Law No. 25 of 2004, and the RPJMN 2020–2024. Foreign Direct Investment (FDI) should be directed toward productive and technology-based sectors such as manufacturing and digital industries to maximize capital accumulation and technological spillovers. Government expenditure needs to be focused on productive areas like infrastructure, education, and health to generate long-term growth impacts, rather than on consumption-based spending. Trade policies should aim to boost export competitiveness and reduce dependence on imports to improve trade balance and industrial resilience. Additionally, maintaining inflation within a moderate and stable range is essential to safeguard purchasing power, encourage investment, and ensure macroeconomic stability. Strengthening coordination among fiscal, monetary, and trade policies will be crucial for fostering sustainable and inclusive economic growth in Indonesia.

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