

Determinants Influencing Economic Growth in Five Asean Countries during The Period 2015-2024

Radista Ravakalista^{1*}, Eni Setyowati²

^{1,2} Faculty of Bussines, Universitas Muhammadiyah Surakarta, Surakarta, Indonesia

Abstract

Economic development in the ASEAN region is shaped by complex dynamics arising from globalization, market volatility, and external influences. Guided by the endogenous growth theory, this study examines the impact of foreign direct investment (FDI), exchange rate fluctuations, inflation, and net exports on economic growth. Using panel data from five ASEAN countries Indonesia, Singapore, Thailand, Vietnam, and Brunei Darussalam covering the period 2015 to 2024, panel data regression analysis was employed. The results reveal that exchange rate stability and moderate inflation have a positive and significant effect on economic growth, whereas FDI and net exports are not statistically significant. These findings underscore the importance of maintaining monetary stability and adaptive economic governance to foster inclusive and sustainable growth in the ASEAN region.

Keywords: Economic Growth, ASEAN, FDI, Exchange Rate, Inflation

Introduction Section

Economic growth serves as a crucial indicator for assessing a nation's capacity to achieve sustainable development goals. ASEAN member states, particularly Indonesia, Singapore, Thailand, Vietnam, and Brunei Darussalam, are currently navigating a delicate path of economic expansion shaped by numerous domestic and global factors. Between 2015 and 2024, the region experienced volatility in global trade patterns, fluctuations in foreign direct investment, exchange rate instability, and notable inflationary pressures. The trade conflict between the United States and China led to declining trade volumes and disruptions in global supply chains, adversely affecting the export performance of several countries. (Maharani & Setyowati, 2024) note that the COVID-19 pandemic further worsened economic conditions by suppressing global demand, limiting individual mobility, and slowing the inflow of foreign investment into the region, findings consistent with (Marconi et al., 2021). Previous studies also emphasize that such external shocks intensify the structural vulnerabilities of developing economies and hinder their long-term growth prospects (Yudha & Anwar, 2025).

In view of these developments, examining the determinants that influence economic growth has become essential, particularly those related to macroeconomic indicators such as net exports, foreign direct investment (FDI), exchange rates, and inflation. These indicators not only reflect the resilience of the domestic economy but also reveal its vulnerability to external shocks. For example, exchange rate fluctuations can affect export competitiveness, while inflows of FDI act as important drivers of technological progress and job creation (Wahyuni et al., 2025). Moreover, high inflation can erode consumer purchasing power and weaken domestic consumption, which represents a key source of economic dynamism (Ahmad & Linge, 2024). Therefore, empirical investigation of these crucial factors is vital for formulating effective policies that ensure the stability and sustainability of the region's economic growth (Putri & Nasution, 2022).

A substantial body of empirical research has examined the relationship between macroeconomic determinants, including foreign direct investment (FDI), net exports, exchange rates, and inflation, and their influence on economic growth. (Sinaga et al., 2025) emphasize that FDI serves as a major driver of growth in developing countries through the transfer of technology and the strengthening of domestic production capacity. This argument is supported by (Hidayat & Woyanti, 2021), who found that the positive impact of FDI on growth is most effective when supported by the development of a strong domestic financial sector. In addition, FDI has been shown to outperform domestic investment in promoting growth because it encourages the adoption of advanced technology and managerial skills. FDI inflows are positively associated with productivity and economic growth in ASEAN countries, provided that stable macroeconomic policies are maintained. These findings underscore the importance of foreign capital inflows as a key engine of growth, particularly in developing regions that are able to attract sustained investment.

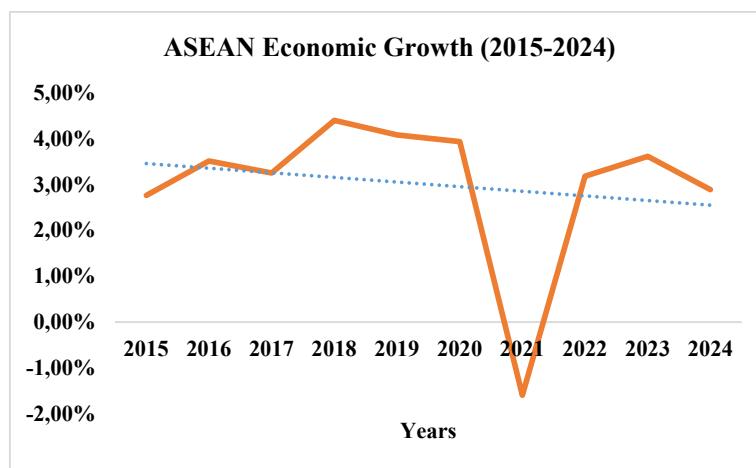
In the context of foreign direct investment (FDI), net exports are often regarded as a key catalyst for economic progress, especially in Asian countries that display a strong reliance on global trade. (Yakubu et al., 2022) found that net exports have a positive effect on economic growth in the Asian region, in line with international trade theories that

* Corresponding author: es241@ums.ac.id

emphasize the importance of specialization and comparative advantage. (Yudha & Anwar, 2025) further demonstrated that dependence on exports, particularly in manufactured goods, serves as an important factor in increasing national income. However, the contribution of net exports to economic growth is frequently affected by fluctuations in global prices and the complexity of international demand, which can create economic instability in countries that rely heavily on export-oriented activities (Wihardja & Jayadi, 2023).

In contrast, empirical studies examining the effects of exchange rate volatility and inflation on economic growth often yield mixed results. Low and stable inflation supports economic growth, whereas rising inflation can discourage investment and reduce consumer spending. Likewise, fluctuations in exchange rates are commonly associated with uncertainty that hinders trade and investment activities (Akadiri & Akadiri, 2021). The inconsistencies among these findings are largely shaped by country-specific conditions, the period of analysis, and the methodological approaches used. Therefore, there remains a considerable gap in the literature that highlights the need for a comprehensive assessment of these variables within a framework specifically designed for the ASEAN region during the period from 2015 to 2024.

The dataset used in this study consists of annual secondary data covering the period from 2015 to 2024. The variables include gross domestic product (GDP) growth expressed as an annual percentage, net exports as a percentage of GDP, foreign direct investment (FDI) as a percentage of GDP, exchange rates relative to the United States dollar (USD), and inflation measured by the consumer price index (CPI, annual percentage). The primary data sources are the World Bank and the International Monetary Fund (IMF), which are widely utilized for panel data analysis and the evaluation of contemporary macroeconomic conditions (Fund, 2021). For example, (Surbakti & Wijaya, 2023) examined the determinants of FDI in developing Asian countries using a panel dataset from 2002 to 2018, emphasizing the importance of integrating international and national data to capture both cross-country and time variations (Wihardja & Jayadi, 2023). Similarly, (Alekhina & Ganelli, 2023) analyzed inclusive growth in the ASEAN region by applying the Arellano Bond dynamic panel method with data from the World Bank and the IMF, highlighting the importance of data robustness and validity in economic policy analysis.



Graph 1. ASEAN Economic Growth (2015-2024)

Source: World Bank (2024)

Graph 1 illustrates the growth trajectory of the ASEAN economy during the period from 2015 to 2024, which is characterized by fluctuations. Overall, ASEAN's economic expansion remained within the range of 3 to 4 percent before the onset of the COVID-19 pandemic, reaching its peak in 2018 at a rate exceeding 4 percent. However, the region experienced a sharp contraction in 2020, culminating in its lowest point in 2021 with a negative growth rate of nearly 2 percent, reflecting the severe impact of the pandemic on regional economic performance. Following this downturn, the ASEAN economy showed signs of a relatively rapid recovery in 2022 and 2023, yet a slight decline was observed again in 2024. The downward trend line indicates that, on average, the region's growth rate has been decreasing over the long term. This trend suggests that despite the recovery, persistent structural challenges and global uncertainties continue to pose significant obstacles to achieving stable and sustainable economic growth in the ASEAN region.

This study seeks to contribute to the existing body of literature on economic growth by employing empirical models based on panel data with a focus on ASEAN countries. This analytical approach enhances the understanding of the complex dynamics of growth in developing economies while providing a methodological framework that incorporates both cross-country and time dimensions (Hidthair et al., 2024). The expected results aim to identify the comparative effects of net exports, foreign direct investment (FDI), exchange rate fluctuations, and inflation on economic growth, thereby addressing important research gaps in cross-country analyses within the ASEAN context (Nopiana et al., 2022). Related studies include those of (Ertika et al., 2022), who applied the ARDL panel model to analyze growth in the ASEAN Five,

and (Aisyah et al., 2023), who used a dynamic GMM panel approach to examine the relationship between economic integration and regional growth.

Although numerous scholarly investigations have scrutinized the determinants of economic growth within the ASEAN region, the majority of these studies predominantly concentrate on the timeframe preceding 2015 or merely emphasize the dynamics prior to the pandemic, thereby failing to account for the structural transformations that have transpired in the post-COVID-19 era. Furthermore, the interplay between exchange rate stability and economic growth has not been thoroughly examined in a comparative manner utilizing a cross-country panel approach that considers the heterogeneity inherent in the macroeconomic characteristics of each nation. A significant portion of prior research has predominantly employed Ordinary Least Squares (OLS) or Vector Autoregression (VAR) methodologies, whereas studies utilizing Random Effects Models (REM) and dynamic panel techniques such as Generalized Method of Moments (GMM) remain relatively scarce, despite their considerable relevance for evaluating macroeconomic dynamics in a global context following periods of turmoil. Consequently, this research endeavors to bridge the existing gap by specifically analyzing the period from 2015 to 2024, encapsulating the complete sequence of trade war shocks, pandemics, economic recuperation, and monetary normalization, in order to re-assess the impact of exchange rates, inflation, foreign direct investment (FDI), and trade balances on the economic growth trajectories of the five ASEAN nations.

Literature Review

Economic growth serves as a key indicator that reflects the improvement of a nation's productive capacity and overall welfare over time. Within the endogenous growth framework proposed by Romer, growth is not solely determined by external factors such as the accumulation of physical capital, but is also shaped by internal mechanisms including innovation, technological capability, and the development of human resources (Krugman & Obstfeld, 2018). This theoretical perspective highlights that investment in knowledge and education produces a multiplying effect on long-term productivity. In the context of globalization, foreign direct investment (FDI) and international trade play a central role, as both facilitate cross-border technology transfer and enhance domestic production efficiency (Adeel-Farooq et al., 2021). Therefore, the endogenous growth theory provides a strong conceptual foundation to explain how economic openness and foreign investment flows can accelerate the development trajectory of ASEAN economies as they progress toward industrialization.

In addition to the endogenous growth theory, the principle of comparative advantage introduced by David Ricardo suggests that international trade benefits countries capable of producing goods and services at lower opportunity costs. In the ASEAN context, trade liberalization promotes regional market integration, facilitates the movement of goods and capital, and accelerates the adoption of innovative technologies that strengthen economic efficiency (Yakubu et al., 2022). This relationship between trade and growth aligns with the spillover principle within the endogenous growth framework, where openness to global markets fosters innovation diffusion and cross-country knowledge transfer (Tien, 2021). Hence, the synthesis of Ricardo's and Romer's theories implies that economic openness, foreign direct investment, exchange rate stability, and effective inflation control are essential foundations for maintaining sustainable growth momentum and enhancing the competitiveness of the ASEAN region amid the challenges of an evolving global economy.

Empirical evidence from various studies shows that macroeconomic indicators such as foreign direct investment (FDI), exports, exchange rates, and inflation have a significant relationship with the patterns of economic growth. (Sinaga et al., 2025) found that FDI inflows have a strong positive effect on growth in developing countries through technology transfer, improved production efficiency, and job creation. (Hidayat & Woyanti, 2021) emphasized that the benefits of FDI are maximized when supported by a sound domestic financial system and stable macroeconomic conditions. In contrast, (Wahyuni et al., 2025) explained that exchange rate stability enhances export competitiveness and reduces import price volatility, while moderate inflation stimulates domestic consumption. Collectively, these findings suggest that ASEAN economic growth is strongly influenced by the balance between economic openness, monetary stability, and the internal structural capacities that sustain long-term productivity.

In terms of methodology, previous research has applied a variety of econometric techniques to capture the complex relationships among macroeconomic variables. (Aisyah et al., 2023) employed the Arellano Bond dynamic Generalized Method of Moments (GMM) approach to assess the impact of economic integration on growth within ASEAN, revealing significant positive long-term effects. Similarly, (Ertika et al., 2022) utilized the Autoregressive Distributed Lag (ARDL) panel model to examine the combined effects of FDI, exports, and inflation on economic growth over both short and long periods. The results confirmed the existence of cross-country and temporal variations that require analysis through dynamic modeling techniques. (Nopiana et al., 2022) reinforced these findings by demonstrating that the use of panel data models provides a more accurate framework for analyzing heterogeneity across ASEAN countries, making it a suitable method for identifying the key determinants of regional economic growth.

From an empirical perspective, it can be concluded that FDI, net exports, exchange rates, and inflation exert significant yet varying effects on economic growth across ASEAN economies. This observation is consistent with endogenous growth theory, which emphasizes the role of capital accumulation, innovation, and technology transfer in promoting long-term productivity (Krugman & Obstfeld, 2018). (Wahyuni et al., 2025) further highlighted that maintaining

exchange rate stability is essential for preserving export competitiveness and strengthening economic openness, both of which enhance sustainable growth potential. Hence, theoretical frameworks and empirical evidence collectively affirm that policies aimed at maintaining macroeconomic stability, encouraging productive investment inflows, and strengthening the export sector are fundamental to accelerating economic convergence among ASEAN countries. The integration of domestic stability with regional cooperation is therefore critical for achieving inclusive and resilient growth amid global uncertainties.

The alignment between theoretical constructs and empirical findings demonstrates that foreign direct investment plays a central role as a channel for technology transfer, enhancement of production capacity, and the adoption of modern managerial practices (Adeel-Farooq et al., 2021). Exports, on the other hand, function as a primary driver of productivity-based growth through mechanisms of specialization and comparative advantage. However, inflation and exchange rate variables often display a paradoxical relationship with growth, depending on the stability and effectiveness of a nation's fiscal and monetary policies (Ahmad & Linge, 2024). Therefore, the integration of Romer's endogenous growth theory with Ricardo's trade theory remains highly relevant in explaining the importance of maintaining a balance between domestic innovation and economic openness. Drawing on this theoretical foundation, the present study aims to incorporate both internal and external dimensions to develop a comprehensive understanding of the dynamics underlying cross-border economic growth in ASEAN economies during the post-pandemic period.

In the ASEAN context, numerous studies emphasize the importance of adopting a transnational perspective to capture the complexity and heterogeneity of regional economic growth. (Indrasto & Asyifa, 2025) revealed that the use of cross-country panel data allows for a more accurate examination of structural and temporal variations, particularly given the differing levels of industrialization and economic integration among ASEAN members. Similarly, (Alekhina & Ganelli, 2023), applying the dynamic GMM approach, found that regional economic integration promotes more inclusive growth through improved investment efficiency and broader technology diffusion. (Indrasto et al., 2024) further stressed that economic diversification and trade openness are vital determinants of growth resilience amid global economic volatility. Collectively, these studies underscore the relevance of cross-country analysis in identifying the key drivers of ASEAN economic growth and highlight the need for an empirical framework that captures the simultaneous interactions among major macroeconomic variables.

Although previous scholarly contributions are extensive, most remain limited to the period before the COVID-19 pandemic and often focus on a single key variable, such as foreign direct investment (FDI) or exports. These limitations have created an empirical gap in achieving a comprehensive understanding of the interrelationships among macroeconomic indicators. This study seeks to fill that gap by integrating four essential variables FDI, net exports, exchange rate, and inflation into a single analytical framework to explain the growth dynamics of ASEAN economies during the period from 2015 to 2024 (Aisyah et al., 2023). The panel data methodology is applied due to its ability to capture both temporal and cross-national dimensions simultaneously (Ertika et al., 2022). Consequently, the study is expected not only to provide empirical contributions to the regional economic literature but also to establish a foundation for policy formulation that enhances the stability and sustainability of economic growth across the region.

The research employs an economic growth model using panel data, where GDP growth serves as the dependent variable and four main independent variables are considered: FDI as a percentage of GDP, net exports as a percentage of GDP, exchange rate against the United States dollar (USD), and inflation measured by the consumer price index (CPI). This methodological design follows the empirical framework developed by (Gujarati, 2009) and contextualized within the ASEAN economic environment as described by (Ertika et al., 2022). The use of this model allows for an in-depth analysis of temporal and spatial variations in the relationships among macroeconomic variables across countries. Moreover, the panel approach is particularly suited to capturing cross-country heterogeneity alongside time dynamics (Wooldridge et al., 2016). It also enables the assessment of both short-term and long-term effects through procedures such as the Chow and Hausman tests, as well as classical diagnostic evaluations for heteroscedasticity and multicollinearity. Consistent with the findings of (Nopiana et al., 2022), this model is considered well suited to evaluate the combined influence of FDI, net exports, exchange rates, and inflation on economic growth in the ASEAN region, while providing a robust empirical foundation for macroeconomic policy recommendations.

Based on theoretical foundations and prior empirical evidence, the hypotheses developed for this study are as follows:

- H1: Net exports have a positive and significant effect on economic growth in ASEAN countries.
- H2: Exchange rates have a negative and significant effect on economic growth in ASEAN countries.
- H3: Foreign direct investment has a positive and significant effect on economic growth in ASEAN countries.
- H4: Inflation has a negative and significant effect on economic growth in ASEAN countries.

Method

Research Design

This study investigates the determinants of economic growth in five ASEAN countries Indonesia, Singapore, Thailand, Vietnam, and Brunei Darussalam over the period 2015–2024. Economic growth is measured as the annual percentage change in real GDP, while the independent variables include net exports, foreign direct investment (FDI),

exchange rate, and inflation. The analysis is grounded in Romer’s endogenous growth theory, emphasizing that long-term growth is shaped by both domestic macroeconomic conditions and external economic integration. All data used in this study are secondary and obtained from the World Bank and the International Monetary Fund (IMF).

To ensure empirical robustness, a quantitative approach was applied using panel regression techniques. Prior to model estimation, a series of diagnostic tests including normality, heteroscedasticity, autocorrelation, and multicollinearity were conducted to ensure that the classical assumptions of panel data regression were satisfied.

Variable Definition and Measurement

Table 1 presents the list of variables used in this study, including their symbols, definitions, measurement units, data sources, and frequency.

Table 1. Definition of Variable

Variable Name	Symbol	Definition	Unit	Data Source
Economic Growth	GDPG	Annual real GDP growth rate	Percent (%)	World Bank
Net Exports	NX	Exports minus imports as share of GDP	Percent of GDP	World Bank
Log Net Exports	logNX	Natural log of net exports	Log-transformed	World Bank
Exchange Rate	ER	Local currency per USD	Index (LC/USD)	IMF
Foreign Direct Investment	FDI	Net FDI inflows as share of GDP	Percent of GDP	World Bank
Log FDI	logFDI	Natural log of FDI inflows	Log-transformed	World Bank
Inflation	INF	Annual change in CPI	Percent (%)	World Bank

A log transformation was applied to net exports (logNX) and foreign direct investment (logFDI) to address issues of skewed distribution and scale differences. These two variables often display large fluctuations across countries, and the log transformation helps stabilize variance, reduce heteroscedasticity, and generate coefficients that may be interpreted in relative percentage terms. Conversely, exchange rate and inflation were not transformed because their distributions are relatively stable and their interpretation in natural units is essential for policy analysis.

Model Specification and Estimation Technique

This study employs three panel estimation models:

1. Pooled Ordinary Least Squares (Pooled OLS)
2. Fixed Effects Model (FEM)
3. Random Effects Model (REM)

To determine the most appropriate model, two formal tests were conducted:

1. Chow Test: Used to decide between Pooled OLS and FEM.
A significant F-statistic indicates that FEM is preferred.
2. Hausman Test: Used to compare FEM and REM.
A non-significant Chi-square statistic indicates that REM is preferred.

Based on these tests, the Random Effects Model (REM) was selected as the optimal estimator for this study.

The general estimation model is specified as follows:

$$PE_{it} = \alpha + \beta_1 \log NX_{it} + \beta_2 KURS_{it} + \beta_3 \log FDI_{it} + \beta_4 INF_{it} + \varepsilon_{it}$$

In this model, economic growth serves as the dependent variable, representing the overall performance of each ASEAN economy. The independent variables consist of net exports, calculated as the difference between exports and imports; foreign direct investment (FDI), reflecting the inflow of foreign capital; the exchange rate of each country’s currency against the United States dollar; and the annual inflation rate. These variables collectively capture the macroeconomic dimensions that influence economic growth across the selected ASEAN countries.

Estimation Technique

This research employed the regression estimation methodology of panel data to investigate the impact of macroeconomic variables on economic growth across five ASEAN nations, specifically Indonesia, Malaysia, Thailand, the Philippines, and Vietnam, during the period from 2015 to 2024. The rationale for selecting panel data is well-supported, as it integrates both time series and individual (cross-sectional) dimensions, thereby enabling the analysis of interstate dynamics alongside intertemporal variations. The estimation framework encompasses three principal methodologies: Pooled Ordinary Least Squares, Fixed Effects Model (FEM), and Random Effects Model (REM). To ascertain the most suitable model, the Chow test was executed to compare Pooled OLS with FEM, while the Hausman test was employed to distinguish between FEM and REM (Wooldridge et al., 2016). The results derived from this estimation lay a foundational basis for identifying the most appropriate and statistically robust regression models for assessing relationships between the variables.

Before conducting the regression analysis, all variables underwent classical assumption testing, which incorporated evaluations for heteroscedasticity, multicollinearity, and autocorrelation, thereby ensuring the credibility of the estimation outcomes. The estimation procedure was executed utilizing statistical software, specifically Stata MP17. This panel estimation technique enables the capture of variations in both interstate and intertemporal characteristics, while also producing more robust parameter estimates in comparison to univariate time series or cross-sectional regression methodologies. This methodological selection is particularly well-suited for examining cross-border macroeconomic phenomena within a medium to long-term framework (Wooldridge et al., 2016).

Result and Discussion

Result

The results obtained from the estimation using the Chow test and the Hausman test were employed to examine the influence of key determinants on economic growth across the five ASEAN countries. The table summarizing the estimation results provides a clear depiction of the contribution of each independent variable to economic growth within the region. The following section presents a detailed interpretation based on these estimated findings.

Table 2. CE/FE/RE Result

Variable	Regression Coefficient		
	CEM	FEM	REM
Constant	-0,1814	0,0826	-0,1761
logNX	0,0141	-0,009	0,0021
KURS	0,0104*	0,0103	0,0024*
logFDI	0,0154***	0,5695	0,0054***
INF	0,4315*	0,0027*	0,4831*
R ²	0,541	0,5042	0,9367
Prob F-stat	0,000	0,000	0,000

(1) Chow Test

Cross-section $F(4, 37) = 9,18$; Prob.F = 0,000

(2) Hausman Test

Cross-section random $\chi^2(3) = 1,983$; Prob $\chi^2 = 0,3468$

Source: Author, (2025)

Following the evaluation of the optimal model specification, the results of the Chow test and the Hausman test are summarized in Table 2. The Chow test is used to determine whether the Common Effect Model (CEM) or the Fixed Effect Model (FEM) is more appropriate. According to the decision rule, if the statistical F value is lower than the alpha level, the FEM is selected. The results show that the statistical F value of 0.000 is less than alpha, indicating that the FEM is the preferred model. Subsequently, the Hausman test assesses whether the Fixed Effect Model or the Random Effect Model (REM) should be used. The decision rule states that if the probability value of Chi-squared (Chi2) is less than alpha, the FEM is selected; otherwise, the REM is preferred. The Hausman test results indicate that the probability of Chi2 is greater than alpha, thereby confirming the Random Effect Model as the most suitable estimation model.

Table 3. REM Result

$PE_{it} = -0,1761 + 0,0021logNX_{it} + 0,0024KURS_{it} + 0,0054logFDI_{it} + 0,4831INF_{it} + \varepsilon_{it}$				
	(0,329)	(0,011)	(0,067)	(0,009)
$R^2 = 0,9367$; F-stat = 41,77 Prob. F-stat = 0,000				

Source: Author, (2025)

According to the findings presented in Table 3, the F test produces a p-value below the significance level of $\alpha = 5$ percent. This indicates that net exports, exchange rates, foreign direct investment, and inflation collectively have a statistically significant effect on economic growth across the five ASEAN countries during the period from 2015 to 2024. Furthermore, the coefficient of determination (R^2) shows that 93.67 percent of the variation in economic growth can be explained by changes in these four macroeconomic variables, while the remaining 6.33 percent is attributed to factors outside the model.

An examination of the country-specific constants within the Random Effects Model (REM) reveals that the highest constant value is found in Thailand, recorded at -0.0545. This implies that, on average, Thailand experienced the strongest economic growth response to variations in exchange rates and inflation during the 2015–2024 period. Conversely, the lowest constant value in the REM model is observed in Brunei Darussalam, at -0.2791, suggesting that the impact of exchange rates and inflation corresponded to the weakest average economic growth within the same timeframe.

Table 4. Validity Test

Test	Value	P-Value
Normality (Jarque-Berra)	4,337	0,1144
Autocorrelation (Breusch-Godfrey)	1,497	0,2317
Heteroscedasticity(Breusch-Pagan)	0,931	0,2312
Multicollinearity (VIF)	<i>Mean VIF</i>	
	1,245	

Source: Author, (2025)

To ensure the reliability and validity of the model, a series of classical assumption tests were conducted. The first, the normality test, shows that the p-value is greater than the alpha level, indicating that the data follow a normal distribution and are suitable for estimation. The autocorrelation test also yields a p-value exceeding the alpha threshold, confirming the absence of autocorrelation problems. In addition, the heteroscedasticity test produces a p-value higher than alpha, suggesting that the model is free from heteroscedasticity. Finally, the multicollinearity test reveals a variance inflation factor (VIF) value below 5, demonstrating that multicollinearity is not present and that the model satisfies all classical assumptions required for panel data analysis.

Table 5. t-test Result

Variable	Coeff	P-Value	Conclusion
<i>logNX</i>	-0,0021	0,329	β_1 not significant at α 0,05
<i>KURS</i>	0,0024	0,011	β_2 significant at α 0,05
<i>logFDI</i>	0,0054	0,067	β_3 not significant at α 0,05
<i>INF</i>	0,4831	0,009	β_4 significant at α 0,05

Source: Author, (2025)

Based on the results of the t-test presented in Table 5, not all variables exhibit a statistically significant influence on economic growth. Among the independent variables, only exchange rates and inflation show significance at the 5 percent level. The exchange rate variable has a coefficient value of 0.0024, indicating that a one-unit appreciation in the domestic currency of an ASEAN country leads to an increase of approximately 0.24 percent in economic growth. Similarly, inflation demonstrates a significant positive effect with a coefficient of 0.4831, implying that a 1 percent rise in inflation corresponds to a 0.4831 percent increase in economic growth across the ASEAN region. In contrast, net exports and foreign direct investment (FDI) do not have a statistically significant effect, as their probability values exceed the 5 percent significance threshold.

Discussion

The analysis reveals that net exports have a negative and statistically insignificant coefficient in relation to economic growth across the five ASEAN countries during the period from 2015 to 2024. Although, in theory, net exports defined as exports minus imports are expected to have a positive impact on economic growth, the weak relationship observed suggests that net exports do not constitute the primary drivers of growth in these ASEAN economies (Yurahman & Satria, 2025). This outcome implies that international trade, particularly trade surpluses, has not made a consistent contribution to aggregate national output. The lack of statistical significance further indicates substantial variability and inconsistency in the role of net exports among the five ASEAN countries during the study period.

The limited effect of exports on economic growth in the ASEAN region can be explained by several structural and contextual factors. First, many ASEAN economies remain heavily dependent on the export of primary commodities such as palm oil, rubber, coal, and crude oil, which generally have low value added and are highly vulnerable to global

price fluctuations (Wihardja & Jayadi, 2023). When commodity prices decline, export revenues fall correspondingly, resulting in unstable contributions to GDP. Second, the export of high value-added products, including manufactured goods and advanced technologies, is concentrated in a few countries most notably Malaysia and Vietnam while other member states are still in the early stages of industrialization. Third, rising dependence on imported raw materials and capital goods has increasingly led to relatively modest or even negative net export figures (Surbakti & Wijaya, 2023). Therefore, transforming trade into a sustainable driver of growth requires greater export diversification and the strengthening of domestic industrial capacity.

Empirical results also indicate that the exchange rate exhibits a positive and statistically significant coefficient at the 5 percent significance level, suggesting a strong relationship between exchange rate stability and economic growth in ASEAN countries from 2015 to 2024. This finding supports the theoretical framework that emphasizes the role of macroeconomic stability particularly exchange rate stability in creating a favorable economic environment (Surbakti & Wijaya, 2023). Stable exchange rates enhance the predictability of production costs and raw material procurement, while reducing financial risks associated with exchange rate volatility in international trade. This condition promotes growth in the real sector, especially in export-oriented industries, and encourages long-term investment by both domestic and foreign investors (Rienadi & Setyowati, 2025). Hence, countries that successfully maintain stable currency valuations tend to experience more sustained and consistent patterns of economic growth (Adeel-Farooq et al., 2021).

The positive and significant relationship between exchange rate stability and economic growth suggests that stable exchange rates promote a high degree of economic certainty in commercial activities. In the context of ASEAN countries, exchange rate stability strengthens corporate strategic planning, reduces hedging costs, and enhances the attractiveness of foreign direct investment (FDI). Moreover, stable exchange rates help mitigate inflationary pressures on imported goods, which directly supports domestic price stability and sustains consumer spending patterns (Mawardi, 2023). Countries such as Singapore, Malaysia, and Vietnam, which have maintained currency stability through prudent monetary policies and careful management of foreign exchange reserves, have achieved relatively higher economic growth over the study period. Therefore, preserving exchange rate stability represents a key strategic foundation for managing economic growth from both medium and long-term perspectives (Karisma & Setyowati, 2024).

Empirical evidence also indicates that the variable of foreign direct investment exhibits a positive but statistically insignificant coefficient with respect to economic growth. In other words, while the direction of the relationship aligns with theoretical expectations suggesting that FDI should stimulate growth through capital inflows, technological progress, and employment generation the observed effects are not sufficiently strong to be considered statistically significant within this analytical framework (Hidhiir et al., 2024). This implies that the inflow of FDI into ASEAN countries during the 2015–2024 period has not generated consistent or uniform economic outcomes. These findings may also reflect the influence of external factors such as global uncertainty or the concentration of FDI in specific industries, rather than its role as a primary driver of domestic economic development (Batrancea et al., 2021).

The absence of a significant impact of FDI on economic growth within the ASEAN context can be attributed to several structural factors. First, much of the FDI inflow has been directed toward extractive or capital-intensive sectors, such as mining and real estate, which contribute little to domestic value addition (Rienadi & Setyowati, 2025). Second, the repatriation of profits by multinational corporations to their home countries reduces the net benefit of FDI to local economies. Third, the limited capacity of domestic labor to absorb knowledge and technology from foreign investors constrains technology diffusion and long-term productivity enhancement (Azam & Khan, 2022). These findings underscore that the mere presence of FDI does not automatically lead to higher gross domestic product (GDP) unless it is supported by complementary policies, including technology transfer mechanisms, human capital development, and incentives that encourage investment in productive sectors (Shimizu, 2021).

The empirical results indicate that inflation shows a positive and statistically significant effect on economic growth at the 5% level. Although this finding contrasts with classical macroeconomic theory, it aligns with evidence from emerging markets where moderate inflation reflects strong domestic demand and healthy economic activity. In several ASEAN countries, inflation remained within a “growth-compatible range” during the post-COVID recovery period, supporting consumption and production expansion. Thus, controlled inflation can be interpreted as a signal of economic vitality rather than an indication of crisis (Yakubu et al., 2022). These findings align with the structuralist perspective, which argues that inflation, when maintained within manageable limits, is a consequence of economic growth rather than a cause of economic slowdown (Yurahman & Satria, 2025).

However, this positive correlation requires careful interpretation. While moderate inflation may foster growth, excessively high inflation can lead to economic instability. In the ASEAN context, well-managed inflation serves as an indicator of strong demand, robust household consumption, and increased investor confidence in future economic prospects. Yet, if inflation surpasses a tolerable threshold typically between 7 and 10 percent it may erode consumer purchasing power and raise production costs, thereby constraining medium-term growth (Tien, 2021). Consequently, it is essential for developing economies to maintain inflation within an optimal target range through coordinated monetary policy measures. These findings highlight the importance of central bank credibility in managing inflation expectations to ensure sustainable and inclusive economic development (Shimizu, 2021).

Conclusion

Conclusion

This study examined the determinants of economic growth in five ASEAN countries from 2015 to 2024 using a Random Effects Model. The findings indicate that exchange rate stability and inflation are the only variables that significantly influence economic growth during the period, while net exports and FDI do not show statistically significant effects. The positive and significant coefficient of the exchange rate suggests that a predictable and stable currency environment plays a central role in supporting trade activities, investment decisions, and macroeconomic confidence. Likewise, the positive effect of inflation though counterintuitive in classical theory reflects the post-pandemic reality in which moderate inflation coincided with the recovery of domestic demand and production cycles across several ASEAN economies. In contrast, the insignificant role of net exports and FDI reflects structural differences among ASEAN members, including reliance on low value-added exports, commodity price volatility, and varied absorptive capacities for foreign investment. These results underscore the importance of considering heterogeneity in economic structure, policy frameworks, and industrial composition when evaluating the drivers of regional growth.

Policy Implication

Based on the empirical findings, several policy recommendations emerge::

1. Strengthen exchange rate stability frameworks.
Countries such as Indonesia and the Philippines may reinforce their managed-float regimes through adequate reserve buffers and coordinated intervention strategies to reduce excessive volatility. Meanwhile, export-oriented economies like Vietnam and Malaysia can enhance competitiveness by maintaining predictable exchange-rate movements aligned with trade performance.
2. Maintain inflation within a growth-compatible target range.
Central banks across ASEAN should continue refining inflation targeting policies to balance price stability with growth needs. Moderate inflation between 3–5 percent as observed during the recovery period appears supportive of domestic demand, but must be managed carefully to avoid threshold effects that could harm long-term growth.
3. Improve the quality, not only the quantity, of FDI.
Governments should encourage investment that promotes technology transfer, strengthens domestic value chains, and creates skilled employment. Investment incentives may be redesigned to favor manufacturing, digital industries, and green technology rather than capital-intensive, low-spillover sectors.
4. Enhance export diversification and reduce reliance on primary commodities.
ASEAN economies with commodity-heavy export baskets such as Indonesia and Brunei should accelerate industrial upgrading and expand high value-added sectors to stabilize export revenues and strengthen resilience against global price shocks.

These policy directions highlight the importance of balancing macroeconomic stability with long-term structural reforms to sustain inclusive and resilient economic growth in the post-pandemic ASEAN landscape.

Acknowledgment

I sincerely express my deepest gratitude to my parents for their unwavering support and endless prayer. I also extend my heartfelt thanks to my sisters and extended family whose encouragement and motivation have made this journey feel more meaningful. To my friends, thank you for the companionship, discussions, and continuous encouragement throughout this process. I am also deeply appreciative of my academic advisor, whose patience and guidance have been invaluable in completing this work. All the support and care from you have been a priceless gift in my academic journey.

References

- Adeel-Farooq, R. M., Raji, J. O., & Adeleye, B. N. (2021). Economic growth and methane emission: testing the EKC hypothesis in ASEAN economies. *Management of Environmental Quality: An International Journal*, 32(2), 277–289. <https://doi.org/10.1108/MEQ-07-2020-0149>
- Ahmad, U. S., & Linge, A. (2024). Inflasi Dan Pertumbuhan Perekonomian Di Indonesia. *Brilliant: Journal Of Islamic Economics And Finance*, 2(2), 223–240.
- Aisyah, H., Dahlan, M. D., & Aprila, M. (2023). Pengaruh Hubungan Antara Ketimpangan Pendapatan, Pengurangan Kemiskinan Dan Pertumbuhan Ekonomi: Sebuah Perspektif Dari Indonesia. *Jurnal Economina*, 2(12), 3722–3736.
- Akadiri, S. S., & Akadiri, A. C. (2021). Examining The Causal Relationship Between Tourism, Exchange Rate, And Economic Growth In Tourism Island States: Evidence From Second-Generation Panel. *International Journal Of Hospitality & Tourism Administration*, 22(3), 235–250.
- Alekhina, V., & Ganelli, G. (2023). Determinants Of Inclusive Growth In ASEAN. *Journal Of The Asia Pacific Economy*, 28(3), 1196–1228.
- Azam, M., & Khan, S. (2022). Threshold Effects In The Relationship Between Inflation And Economic Growth: Further Empirical Evidence From The Developed And Developing World. *International Journal Of Finance & Economics*, 27(4), 4224–4243.

- Batrancea, L., Rathnaswamy, M. M., & Batrancea, I. (2021). A Panel Data Analysis Of Economic Growth Determinants In 34 African Countries. *Journal Of Risk And Financial Management*, 14(6), 260.
- Ertika, Y., Fakhurrizi, K., Risma, O. R., & Juliansyah, R. (2022). Pendekatan Autoregressive Distributed Lag Trade-Openness Dan Foreign Direct Investment Terhadap Pertumbuhan Ekonomi Indonesia. *Jurnal Investasi Islam*, 7(2), 125–133.
- Fund, I. M. (2021). *World Economic Outlook Database*. <https://www.imf.org/en/Data>
- Gujarati, D. N. (2009). *Basic econometrics* (5th ed.). McGraw-Hill.
- Hidayat, S., & Woyanti, N. (2021). Pengaruh Pdrb Per Kapita, Belanja Daerah, Rasio Ketergantungan, Kemiskinan, Dan Teknologi Terhadap Ipm Di Indonesia. *Jurnal Ekonomi, Bisnis, Dan Akuntansi*, 23(4), 122–137.
- Hidhthir, M. H. B., Ahmad, Z., Junoh, M. Z. M., & Yusof, M. F. B. (2024). Dynamics Of Economic Growth In ASEAN-5 Countries: A Panel ARDL Approach. *Discover Sustainability*, 5(1), 145.
- Indrasto, H. B. B., & Asyifa, H. N. (2025). Evaluasi Dampak Foreign Direct Investment terhadap Kerusakan Lingkungan: Studi Empiris Sektor Jasa Indonesia. *JCER: The Journal of Contemporary Entrepreneurship Research*, 1(1).
- Indrasto, H. B. B., Asyifa, H. N., & Kuncoro, T. G. (2024). *Evaluation Impact of the European Union Anti-Deforestation Regulation (EUDR) Policy: Empirical Study of Indonesian Agricultural Product Exports*. Proceeding ISETH (International Summit on Science, Technology, and Humanity).
- Karisma, K. D., & Setyowati, E. (2024). The Effect Of Export, Import, And Exchange Rates Of Economic Growth On China. *Economic Reviews Journal*, 3(3), 2513–2522.
- Krugman, P. R., & Obstfeld, M. (2018). *International Economics: Theory and Policy* (11th ed.). Pearson.
- Maharani, I. A. E., & Setyowati, E. (2024). Analisis Determinan Foreign Direct Investment di ASEAN-6. *Jurnal Informatika Ekonomi Bisnis*, 177–183. <https://doi.org/10.37034/infeb.v6i1.830>
- Marconi, V. C., Ramanan, A. V, Bono, S., Kartman, C. E., Krishnan, V., Liao, R., & Zirpe, K. (2021). Efficacy And Safety Of Baricitinib For The Treatment Of Hospitalised Adults With COVID-19 (COV-BARRIER): A Randomised, Double-Blind, Parallel-Group, Placebo-Controlled Phase 3 Trial. *The Lancet Respiratory Medicine*, 9(12), 1407–1418.
- Mawardi, K. (2023). Dampak Nilai Tukar Mata Uang Terhadap Perdagangan Internasional. *SAMMAJIVA: Jurnal Penelitian Bisnis Dan Manajemen*, 1(4), 239–258.
- Nopiana, E., Habibah, Z., & Putri, W. A. (2022). The Effect Of Exchange Rates, Exports And Imports On Economic Growth In Indonesia. *Marginal: Journal Of Management, Accounting, General Finance And International Economic Issues*, 1(3), 111–122.
- Putri, I. A., & Nasution, E. O. A. (2022). Kebijakan Moneter Dan Implikasinya Terhadap Pembangunan Ekonomi Dalam Perepektif Ekonomi Islam. *Studia Economica: Jurnal Ekonomi Islam*, 8(1), 166–183.
- Rienadi, N. P., & Setyowati, E. (2025). The Effect Of FDI, Exports, Inflation On Economic Growth Of The America And India 1983–2022. *Al Qalam: Jurnal Ilmiah Keagamaan Dan Kemasyarakatan*, 19(3), 1730–1747.
- Shimizu, K. (2021). The ASEAN Economic Community And The RCEP In The World Economy. *Journal Of Contemporary East Asia Studies*, 10(1), 1–23.
- Sinaga, M., Zalukhu, R. S., Collyn, D., Hutauruk, R. P. S., & Harbain, H. (2025). Pengaruh Foreign Direct Investment (FDI), Cost Of Production (COP), Dan Inflasi Terhadap Daya Saing Ekspor: Tinjauan Literatur. *Cost Of Production (COP), Dan Inflasi Terhadap Daya Saing Ekspor: Tinjauan Literatur. Jurnal Ekuilnomi*, 7(2), 527–534.
- Surbakti, S. P. P., & Wijaya, S. (2023). Pengaruh Foreign Direct Investment Dan Urbanisasi Terhadap Penerimaan Pajak Dengan Moderasi Pengendalian Korupsi Pada Negara ASEAN. *Journal Of Law, Administration, And Social Science*, 3(2), 133–147.
- Tien, N. H. (2021). Relationship Between Inflation And Economic Growth In Vietnam. *Turkish Journal Of Computer And Mathematics Education*, 12(14), 5134–5139.
- Wahyuni, N. T., Muzaki, G. S., Ningrum, W. A., Melvin, M., Maharani, G. D., & Firmansyah, A. H. (2025). Mekanisme Penerapan Ekonomi Terbuka Dan Tertutup Di Indonesia. *Musyteri: Jurnal Manajemen, Akuntansi, Dan Ekonomi*, 17(12), 41–50.
- Wihardja, I., & Jayadi, J. (2023). Hubungan Antara Liberalisasi Keuangan Terhadap Pertumbuhan Ekonomi: Tinjauan Meta Analisis. *Labs: Jurnal Bisnis Dan Manajemen*, 28(4), 13–23.
- Wooldridge, J. M., Wadud, M., & Lye, J. (2016). *Introductory econometrics: Asia pacific edition with online study tools 12 months*. Cengage AU.
- Yakubu, I. N., Kapusuzoğlu, A., & Ceylan, N. B. (2022). The Moderating Effect Of Exchange Rate Volatility On Export Diversification And Economic Growth Nexus In The G7 Countries. *Journal Of Research In Business*, 7(1), 195–207.
- Yudha, Y. D. P., & Anwar, M. Z. K. (2025). Dampak Ekspor Dan Impor Terhadap Pertumbuhan Ekonomi Di Indonesia. *Jurnal Riset Manajemen Dan Ekonomi (JRIME)*, 3(1), 171–182.
- Yurahman, D., & Satria, D. (2025). Dampak Stabilitas Ekonomi Terhadap Pertumbuhan Ekonomi Jangka Panjang. *Media Riset Ekonomi Pembangunan (Medrep)*, 2(1).