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ASEAN-5 Economic Growth Determination 2019-2023

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Abstract

This study analyzes the influence of Foreign Direct Investment (FDI), population growth, government spending, and unemployment rates on economic growth in five ASEAN countries-Indonesia, Malaysia, Singapore, Thailand, and Vietnam for the 2019-2023 period. The method applied is quantitative descriptive analysis with a panel data regression model through the Fixed Effect Model (FEM) approach. The findings of the study describe that FDI has a positive and significant effect on economic growth, indicating the importance of foreign investment in encouraging production and technology transfer. On the other hand, population growth and unemployment have a negative and significant effect, reflecting demographic pressures and weak labor absorption. Meanwhile, government spending had no significant effect, indicating fiscal policy inefficiencies during the COVID-19 pandemic. Overall, the study emphasizes the role of FDI as a key driver of economic growth and the need for effective human resource management in the ASEAN region.

***Keyword**: Foreign Direct Investment (FDI), Population Growth, Government Spending, Unemployment, Economic Growth, ASEAN.*

Introduction

The economic growth of a country or region indicates that efforts to improve the economy have been successful. One way to measure a country's economic performance is to look at its growth rate (Firman, 2021). Economic growth is the rate at which a society increases its income and standard of living in a certain period of time as a result of economic activity. To maintain the continuity of economic development and improve people's welfare, a high and sustainable economic growth rate is needed (Nabongkalon, 2023). Much attention has been paid to the recent economic growth of ASEAN countries, especially Vietnam, Indonesia, Malaysia, Singapore, and Thailand.

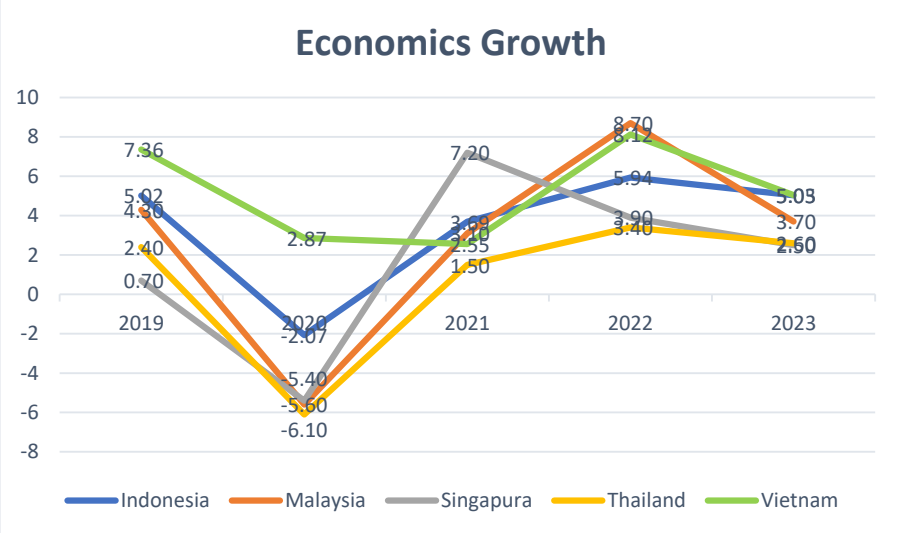

***Figure** 1. Economics Growth in Indonesia, Malaysia, Singapura, Thailand and Vietnam for the 2019-2023 Period*
Source : World Bank Processed Excel

Figure 1. shows significant fluctuations in several ASEAN countries due to global dynamics, especially the COVID-19 pandemic. In 2019, all five countries recorded positive growth. Vietnam occupies the highest position with a growth of 7.36%, while Indonesia is still stable at 5.02%. However, in 2020, all countries experienced an economic contraction from the pandemic. Thailand experienced the sharpest decline to -6.10%, followed by Malaysia (-5.60%) and Singapore (-5.40%). Indonesia, despite experiencing a slowdown, only fell to -2.07%, showing relatively better economic resilience. Entering 2021, the five countries began to show a recovery trend. Vietnam again recorded high growth of 2.55%, while Indonesia also began to recover with 3.69%. The recovery continued in 2022, where Singapore recorded the highest growth of 8.70%, while Indonesia remained consistent at 5.94%. This shows that there is a difference in the speed of recovery between countries in the region. In 2023, the positive trend will continue albeit with more moderate numbers. Indonesia grew by 5.03%, Malaysia by 3.70%, Singapore by 2.50%, Thailand by 2.60%, and Vietnam by 5.05%. This condition confirms that although *ASEAN* has managed to get through the pandemic crisis, there are variations in the level of economic growth of each nation.

One of the aspects that affects the economic growth of a nation is *Foreign Direct Investment (FDI)*, FDI serves as a source of capital for developing countries to be able to develop their countries and catch up with developed countries, when domestic sources of revenue are insufficient (Nawaa & Pudjihardjo, 2023). FDI provides training, skill acquisition, new management practices, and knowledge transfer that are crucial from organizational settings in the recipient country (Manan & Aisyah, 2023). It not only improves the quality of local human resources, but also strengthens institutional capacity, especially in developing countries that seek to accelerate economic structural transformation.

Population growth has a relationship with economic growth (Azulaidin, 2021). An ever-increasing population can be a driver of economic growth through the expansion of the domestic market, increased consumption, and the availability of labor. Population participation is needed in striving for maximum state development (Faisal, 2024). However, without an improvement in the quality of human resources and an adequate expansion of employment opportunities, such growth can turn into an economic burden, which is reflected in the increase in unemployment and poverty in the community.

Government spending plays a significant role as a policy instrument that can encourage the dynamics and acceleration of a country's economic growth. Government spending is a strong fiscal instrument compared to other economic policies (Ilham, 2024). The government's direct involvement in driving economic activities through financing various important sectors such as education, infrastructure, and health services. Government spending is the embodiment of policies set by the government (Ningrum et al., 2020). For example, a larger budget allocation to the infrastructure sector can optimize the flow of distribution of goods and services, while investment in education and health is directed to strengthen the quality and productivity of human resources. Thus, government spending not only acts as a fiscal instrument, but also as an indicator of the direction of a country's economic development.

The country has failed to address the complicated and confusing problem of unemployment (Pasha, 2024). Unemployment is exacerbated when there are not enough job opportunities, even if there are qualified, skilled, and enthusiastic people in the workforce who are unable to find a job that suits their needs (Lundini, 2024). Unemployment can affect the fluctuations in economic growth in a country, high unemployment shows that most of the labor is not absorbed optimally, thus causing a decrease in national productivity. This has an impact on reducing household income, decreasing people's purchasing power, and ultimately slowing down economic growth.

Research on the determinants of economic growth in the ASEAN region has often been studied, but this research is unique in a specific analysis period, namely in 2019-2023. This period is essential because it exclusively includes the unprecedented massive external shocks, namely the covid-19 pandemic, as well as its initial recovery phase.

The first research gap is the paradox of the effectiveness of government spending. Long-term studies, such as (Jama et al., 2024) period (2000-2021), found that government spending had a positive and significant impact, supporting the Keynesian hypothesis. On the contrary, the findings of this study, which focuses on the crisis, show that government spending does not have a significant effect. This fills the gap by showing that in the period (2019-2023), it is strongly suspected that there has been a fundamental shift in expenditure, from capital expenditure (productive) to defensive spending (social assistance and health) which causes fiscal inefficiency. This inefficiency hypothesis is reinforced by the findings (Sapanang et al., 2024) period (2006-2020), which concluded that indicators of 'government effectiveness' are not significant in driving economic growth in ASEAN.

The second research gap is a highly contradictory finding regarding *Foreig Direct Invesment* (FDI). Studies (Permata et al., 2025) period (2016-2023) found FDI to have a negative and insignificant effect. However, these findings are refuted by other studies on overlapping time spans, (Ariski Aria Admaja et al., 2025) period (2014-2023) and (Iqbal et al., 2025) period (2010-2020) found a positive and significant impact on FDI. This research is included in this debate which is in line with (Ariski Aria Admaja et al., 2025) and (Iqbal et al., 2025) namely FDI has a positive and significant effect.

The novelty of this study is in the model used, by including demographic pressure variables (population growth and unemployment), which were also found to have a significant negative effect and are supported by the findings (Iqbal et al., 2025). This model provides a different and more comprehensive understanding of the dynamics of FDI during crisis periods, which previous research models did not capture. The relevance of this relationship is also confirmed by (Yuliani et al., 2025) which found that economic growth (GDP) itself is a positive and significant determinant factor for FDI inflows in the period (2019-2023).

Research is particularly relevant considering the post-pandemic global economic dynamics that have changed the direction of economic policies in many countries, including ASEAN countries. By deeply understanding the factors that drive or hinder economic growth, governments can develop more appropriate strategies to strengthen national and regional economic foundations. This study is also expected to make a theoretical and practical contribution to the development economics literature as well as a reference for policymakers, academics, and economic actors in the Southeast Asian region.

Literature Riview

Economic growth in the ASEAN region shows considerable variation due to differences in economic structure, institutional quality, and the level of development progress in each member country. The region is known as one of the fastest-growing in the world, mainly thanks to regional economic integration, increased foreign investment flows, and the implementation of free trade policies. Study (D'Aloia & Gugler, 2024) shows that before the COVID-19 pandemic, ASEAN countries experienced a tendency of economic convergence which meant poor countries grew faster than rich countries. However, the 2020-2022 period marked a slowdown in convergence due to the pandemic that widened the gap between ASEAN countries.

In line with these findings, (Retnasih & Herdianti, 2023) stated that the COVID-19 outbreak has had a major effect on various key economic indicators in the ASEAN region, such as GDP, inflation, money supply, and unemployment rate. As a result of the shock, most countries, especially Indonesia, Malaysia, Thailand, and Singapore, experienced a significant economic slowdown, triggered by restrictions on community activities, decreased mobility, and a decline in the trade and tourism sectors.

In a macroeconomic perspective, Foreign Direct Investment (FDI), Population growth, Government Spending, and the main variables that affect the pace of economic growth of a country include the unemployment rate. According to (Ramadhani et al., 2024) at Singapore, variabel FDI and long-term economic growth is significantly affected by government spending, although The direction of the effect may vary depending on Fiscal Policy Effectiveness and Characteristics of economic structure each country.

Next (Ariski Aria Admaja et al., 2025) emphasized that FDI together with effective fiscal policies have a crucial role in driving economic growth in the ASEAN-5 region. The results of the study also highlight the importance of the quality of public spending and a conducive investment climate as factors that can strengthen the positive impact of FDI on sustainable development. Therefore, understanding the relationship between these four variables and economic growth is essential, considering that each ASEAN country faces different challenges in attracting investment, regulating population growth, and maintaining fiscal and labor market stability.

According to the theory *Harrod-Domar* and *Solow-Swan*, investments, including *Foreign Direct Investment* (FDI), has a central role in the process of capital accumulation and long-term economic growth. According to Harrod-Domar's theory, a faster rate of economic growth is achieved through increased investment. The amount of savings and investment is very important to this concept. Meanwhile, the *Solow-Swan* adding an important dimension in the form of technological advancement and labor efficiency as the main factors that determine the long-term growth of a country. In this context, FDI not only functions as a source of external capital, but also as a means of technology transfer, managerial skills, and production innovations that strengthen national productivity. Research (Sijabat, 2023) shows that FDI has a positive two-way relationship with GDP in ten ASEAN countries, including Indonesia, Malaysia, Singapore, and Thailand. This means that FDI not only plays a role in encouraging increased economic growth, but high economic growth can also attract foreign investors to save more capital. But (Nguyen & Ho, 2025) emphasizing that the positive impact of FDI depends on the quality of the institution; in countries with weak governance, the effect of FDI can be negative or insignificant. This happens because the potential increase in productivity brought by foreign investors cannot be utilized to the fullest. On the other hand, countries with effective governance, adequate infrastructure, and a stable investment environment can make FDI a key driver in accelerating economic growth and strengthening economic integration in the ASEAN region.

Based on the view of Malthusian demographic theory and Solow's growth model, population dynamics have two opposing sides in influencing economic growth. There are some good things that can result from population growth, such

as an increase in the number of available labor and a greater number of consumers in the home. This is in line with Solow's theory, which states that labor, along with capital and technological advancement, is a crucial component of the productive function of the economy. However, on the other hand, if population growth is not accompanied by an increase in productivity and quality of human resources, then the effect can actually be a burden on the economy. This condition is in line with Malthus's theory which asserts that a faster rate of population growth than output growth will put pressure on resources, lower per capita income, and slow down the development process. (Aung, 2023) found that because the productivity progress of workers lags behind the population growth in ASEAN, it has a significant negative impact on economic growth. The number of people looking for a job exceeds the number of job openings available. As a result, economic growth is hampered because productive sectors do not make optimal use of most of the workforce. Therefore, to transform population growth into a sustainable economic force, policies that prioritize better education, skills training, and job creation must be implemented.

In the view of Keynesian theory, government spending plays an important role as a fiscal policy instrument to stimulate economic activity, especially when the economy is experiencing a slowdown. Increased state spending in strategic sectors such as infrastructure, education, and public services can increase aggregate demand, boost production, and create new jobs. Thus, the government acts as the main driver (*prime mover*) in overcoming market imbalances and maintaining economic stability. In contrast, neoclassical theory provides a more cautious view by emphasizing the potential for effects *crowding out*, that is, when the increase in government spending actually shifts or reduces the space for private investment due to rising interest rates or fiscal imbalances. This effect arises because the government has to attract additional financing through debt, which then increases the cost of borrowing in the financial markets. (Long, 2020) revealed that in the ASEAN region, government spending has a positive impact on economic growth until it reaches the optimal threshold of 26.82% of the Gross Domestic Product (GDP). However, when spending exceeds that threshold, its impact on growth weakens, indicating fiscal inefficiencies and potential *crowding out*. These findings are in line with the framework of Keynesian theory in a short-term context, but also confirm the neoclassical view that excessive fiscal expansion can have negative effects on productive investment. Research (Rohima et al., 2023) also supports the Keynesian view, that particularly in the ASEAN-5 countries, government spending strongly drives economic growth. Education, health services, and infrastructure development are examples of productive sectors that greatly benefit from public spending because they increase national economic competitiveness and output efficiency. Thus, the quantity and quality of the budget are two factors that determine the effectiveness of public spending. The implementation of targeted and efficient fiscal policies is key to ensuring that public spending is able to play a key role as a key catalyst in accelerating sustainable economic growth in the ASEAN region.

According to Okun's Law (1962), there is a strong negative correlation between unemployment rates and economic growth. Theoretically, when the Gross Domestic Product (GDP) increases, the demand for labor also increases, so the unemployment rate will decrease. In other words, the acceleration of economic growth generally goes hand in hand with an increase in the absorption of labor into the economy. This law forms the basis for many macroeconomic policies that focus on job creation through the growth of the productive sector. However, in practice, the relationship does not always run in a linear fashion, especially in developing countries whose economic structures are still experiencing various constraints. Research (Othman & Salehhin, 2023) found that in the ASEAN-5 region, the correlation between economic growth and unemployment rates is not always negative as Okun explained. Although economic growth has increased, labor absorption has not always increased proportionately. The high proportion of the informal sector, insufficient capacity in labor-intensive industries, and mismatches between labor skills and labor market needs are some of the structural factors that contribute to this. Therefore, industries that rely heavily on capital or high technology but do not absorb much labor actually encourage economic growth. As a result, a situation called unemployment growth arises, which is when the unemployment rate does not decrease significantly in line with economic expansion. Other research (Afrin et al., 2023) in Bangladesh also showed the weak application of Okun's Law in developing countries The study revealed that labor markets in developing countries tend to be rigid and unresponsive to changes in output. Factors such as an inflexible minimum wage, low labor mobility, and limited employment opportunities in the formal sector have weakened the relationship between economic growth and unemployment. Thus, the application of Okun's Law is not universal, but rather highly dependent on the structural and institutional conditions of the labor market in each country. In the context of ASEAN, this shows the need for more adaptive labor policies, upskilling the workforce, and encouragement of labor-intensive sectors so that economic growth can truly create jobs and reduce unemployment in a sustainable manner.

Method

This study uses quantitative descriptive analysis and uses panel data regression to evaluate how the variables interact with each other (Priambodo, 2021). The data applied is panel data, which is secondary data taken from *World Bank*. This design was chosen to analyze the relationship between macroeconomic variables, namely FDI, population growth, government spending, and unemployment rates to economic growth in four ASEAN countries: Indonesia, Malaysia, Singapore, Thailand, and Vietnam during the 2019–2023 period. The following equation is used for regression analysis on panel data(Hanifah & Hanifa, 2021).

$$GDP_{it} = \beta_o + \beta_1 LogFDI_{it} + \beta_2 PG_{it} + \beta_3 LogGOVXEP_{it} + \beta_4 UNEP_{it} + \epsilon_{it} \qquad (1)$$

Information:
GDP = Economic Growth (Percent)
FDI = Direct Investment (Million USD)
PG = Population Growth (Percent)
GOVEXP = Government Expenditure (Billion USD)
UNEP = Unemployment Rate (Percent)
B0 = Constant
B0 – B4 = Regression Coefficient
E = Eror Term
i = Country
t = Year

Result and Discussion

Model Selection and Estimation Test

The results and discussion of econometrics of the Common Effect Model (CEM), *Fixed Effect Model* (*FEM*) and *Random Effect Model* (*REM*) approaches along with the results of the model selection test are summarized in

Table .1 *Regression Results of CEM, FEM and REM*

Variabel	Regression Coefficients		
	CLS/CEM	**FEM**	**REM**
C	23.35808	-282.5864	23.35808
LogFDI	1.028975	5.717129	1.028975
PG	-0.328136	-1.582222	-0.328136
LogGovexp	-1.196058	9.840563	-1.196058
UNEP	-0.230481	-4.623620	-0.230481
R^2	0.110062	0.739755	0.110062
Prob F-statistics	0.654552	0.001582	0.654552
Model Selection Test			
(1) Chow			
Cross-section F(4.16) = 9.678460; prob. *F* = 0.0004			
(2) Hausman			
Random cross-section $\chi^2(4)$ = 38.713838; Prob χ^2 = 0.000			

Source : Data Processed From EViews 12

After running the regression with the CEM, FEM, and REM models, two stages of testing are required to determine the most suitable model for the panel data analysis. The first stage is the *Chow Test*, which is used to choose between CEM and FEM models. The next stage is the *Hausman Test*, which serves to determine the choice between FEM and REM models.

Based on the results of regression estimation with three panel data model approaches, namely CEM, FEM, and REM, it can be seen that there are significant differences in the value of the coefficient and the level of significance between the models. The R^2 value in the FEM model, which is 0.739755, describes the variation in economic growth that can be explained by an independent variable, which is 73.98%, much higher than CEM and REM which are only 11.01%. This indicates that the FEM has a better ability to explain the relationship between FDI, population growth, government

spending, and unemployment rates to economic growth. In addition, the Prob (F-statistic) value in the FEM of 0.001582 < 0.05 also shows that this model is simultaneously significant.

The findings of the Chow Test described an F score of 9.678460 with a probability of 0.0004, < 0.05. Therefore, it can be explained that the FEM model is more relevant than the CEM model, because there are significant differences in individual effects between ASEAN countries in the observation period. Then, the Hausman Test was carried out in comparing FEM and REM models, with a result of χ^2 of 38.713838 and a probability of 0.000. A probability score of < 0.05 indicates an individual effect correlated with independent variables, which makes the FEM model again the most relevant model to use.

Based on the results of the test, FEM was chosen as the best model in this study because it was able to illustrate heterogeneity between ASEAN countries. This means that each country has different economic characteristics, such as fiscal policy, foreign investment levels, and labor dynamics, which affect economic growth specifically. This model is more accurate in capturing these differences than CEM and REM which assume the individual effects are equal or random.

Overall, the findings describe factors such as FDI, population growth, government spending, and unemployment rates having a significant impact on economic growth if differences between countries are taken into account. The use of the FEM model allows for a more realistic analysis of ASEAN economic conditions, where each country's economic structure and policies play an important role in determining the rate of economic growth. Based on the results of the regression of panel data through the FEM method, the following equations were obtained:

Table 2. *FEM Regression Results*

$$GDP = -282{,}5864 + 5{,}717129LogFDI - 1{,}582222PG + 9{,}840563LogGOVEXP - 4{,}623620UNEP$$
$$(0{,}0020)^{***} \quad (0{,}0021)^{***} \quad (0{,}3458) \quad (0{,}0061)^{***}$$

$$R^2 = 0{,}739755;\ F-stat = 5{,}685067;\ Prob.F-stat = 0{,}001582$$

Source : Data Processed From EViews 12

Remarks: *significant coefficient at α 0.01; **significant coefficient at α 0.05; ***significant coefficient at α 0.1

With a value of R^2 = 0.739755, F-statistics = 5.685067, and Prob. F-stats = 0.001582. The F-statistical probability value of less than α (0.05) indicates that the variables FDI, Population Growth, Government Expenditure, and Unemployment Rate together have a significant influence on economic growth in five ASEAN countries for the period 2019–2023. Meanwhile, the R^2 value of 0.739755 means that 73.97% of the variation in economic growth can be explained by four independent variables in the model, and the other 26.03% is affected by other aspects outside the study.

Table 3. *Regional Effect Result*

NO.	COUNTRY	Effect
1	Indonesia	-0.022864
2	Malaysia	12.65703
3	Singapore	-4.053822
4	Thailand	-11.82949
5	Vietnam	3.249150

Source : Data Processed From EViews 12

Based on Table 3, the estimated results show that regional influences on economic growth in ASEAN vary between countries. Malaysia and Vietnam have positive effect values, at 12.65703 and 3.249150, respectively, which indicates that fixed structural factors in both countries are contributing to driving economic growth. This condition reflects policy efficiency, industry competitiveness, and a conducive investment climate.

On the other hand, Indonesia, Singapore, and Thailand showed negative effect values, namely –0.022864, –4.053822, and –11.82949. This indicates that domestic factors in the three countries tend to suppress economic growth. Singapore and Thailand have experienced considerable negative influences, allegedly due to economic slowdown and dependence on certain sectors, while influence in Indonesia is relatively small. The difference in the direction and magnitude of this effect

indicates that each country has different economic characteristics and policies in influencing economic growth, even though they are in the same region, namely ASEAN.

Validity Assesment and Interpretation of Independent Variables

Table 4. Validity Test Results for Independent Variables' Effects

Variabel	Shared efficiency	Prob. t	Conclusion
FDI	5,717129	0,0020	*FDI* has an effect on α = 0.05
PG	-1,582222	0,0021	*PG* has an effect on α= 0.005
GOVEXP	9,840563	0,3458	*GOVEXP* has no effect
UNEP	-4,623620	0,0062	*UNEP* has an effect on α = 0.05

Source : Data Processed From EViews 12

The Effect of FDI on Economic Growth

The regression coefficient of the FDI variable is 5.717129 with the pattern of relationship between GDP and FDI is lin-log and the level of significance is 0.0020 < 0.05, which shows that FDI has a positive and significant influence on economic growth. This means that every 1% increase in FDI will increase economic growth by 0.057%.
These findings affirm the crucial role of FDI as the main support (resilience) of the ASEAN-5 economy in the midst of global shocks. Although the 2019-2023 research period included a pandemic period full of uncertainty, these positive results show that foreign capital flows remain a vital driver for the power. Countries that are able to maintain a conducive investment climate tend to enjoy a rapid recovery, as FDI not only closes the domestic savings gap, but also maintains the sustainability of real sector activities when domestic demand weakens.

This study is in line with the results found (Istiqomah & Faridatussalam, 2024) The Foreign Investment variable has a significant influence on GDP. This research is in line with the results found by (Safira & Setyowati, 2025) deep *Journal of Accounting and Financial Management (Vol. 6, No. 2)* which examines "the influence of exports, imports, and FDI on economic growth in ASEAN-4 (Indonesia, Malaysia, Thailand, and the Philippines) during the period 2018–2023. As well as studies by (Kurniawan et al., 2023) in ASEAN-4. The three studies agree that foreign direct investment has an important role in driving economic growth.

According to them, and supported by these findings, the influx of foreign direct investment is able to provide a double boost. First, through increasing physical production capacity, and second, through *spillover effects* in the form of technology transfer and managerial skills. In theory, these results are consistent with development economics theory (Harrod-Domar and Solow Swan) which states that FDI functions as a means of capital accumulation as well as a driver of efficiency. Therefore, the higher the flow of quality foreign investment that enters, the greater its contribution in strengthening the economic foundation to rise from the crisis.

The Effect of Population Growth on Economic Growth.

The regression coefficient of the Population Growth variable is -1.582222 with the pattern of relationship between Population Growth and Economic Growth is lin-line and the probability is 0.0021 < 0.05. The results of this study describe that population growth has a significant negative impact on economic growth. This finding is interesting because it is statistically contrary to Solow's assumption that labor growth is a positive input of production, and challenges the "Demographic Bonus" narrative that is often echoed in the region.

His interpretation is that every 1% increase in population growth actually decreases economic growth , which is 1.58%. This negative correlation implies that population growth in ASEAN-5 during the 2019-2023 period tends to be dominated by non-productive groups or low-productivity workers. This indicates that high population growth in ASEAN is not balanced through job creation and improvement in the quality of human resources. Without being accompanied by an increase in skills and optimal labor absorption, the additional population only decreases per capita income and increases the dependency rate.

Thus, the economic burden increases in the form of unemployment, poverty, and decreased productivity, which makes the quantity of the population without quality an economic liability. This finding is in line with Malthus's theory (the Malthusian Trap), which explains that population growth faster than the growth of production capacity will suppress per capita income and increase the burden of development.

These findings are in line with the results of the study (Afrianita et al., 2022) through the *System Generalized Method of Moments (SYS-GMM)* in 10 ASEAN countries for the 2015–2019 period, where population growth has a negative and significant effect on GDP. The researcher explained that the increase in the population without optimal labor absorption

actually suppresses the region's economic growth because the economic burden increases due to unemployment and low productivity. Similar results were also obtained in the study (Malida & Marselina, 2023) which examines 5 ASEAN developing countries for the period 2015–2020. Through the application of the model *FEM*, the study found that population had a negative and significant influence on economic growth with a coefficient of –207.6342 (p-value 0.0000). Any increase in population namely a number of 1% decreased economic growth by 2.07%.

The Influence of Government Spending on Economic Growth

The regression coefficient of the Government Expenditure variable is 9.840563, but with a probability of 0.3458 > 0.05, so the effect is not significant. This means that although theoretically (Keynesian) an increase in government spending can encourage economic growth through investment in infrastructure, education, and health, in the 2019–2023 research period, government spending in the 5 ASEAN countries studied did not make a significant contribution to economic growth.

These results are supported by findings from (Helmiyanti & Khoirudin, 2024) which found that the effectiveness of government spending in eight ASEAN countries has not been optimal because budget allocations are more directed towards short-term stabilization goals than long-term productive investments. Public spending is often absorbed in consumptive or administrative sectors, rather than in activities that increase national production capacity such as infrastructure development and quality improvement TBSP.

(Sujidno & Febriani, 2023) It also emphasized that government spending that has a negative impact on economic growth is generally caused by fiscal inefficiency and weak budget governance. This emphasizes the shift from productive spending to defensive (consumptive) spending. During the COVID-19 pandemic, most government spending was focused on health care, social assistance, and short-term economic recovery programs. These policies are indeed crucial in maintaining social stability and containing economic contractions and containing a fall in purchasing power, but they do not necessarily grow long-term productivity.

Since most expenses are consumptive in nature, it has *multiplier effect* which is much smaller than capital expenditure, thus, does not create an effect *multiplier effect* which is strong against national output. Weak *(multiplier effect)* This confirms the findings (Apriani et al., 2025) that corruption or inefficiency can "reduce the effectiveness of government spending". This insignificance also indicates that weak governance, budget increases are not converted into real growth, but are exhausted in the bureaucratic process.

In addition, the *fiscal policy time lag* factor causes the stimulus to be disbursed may only be felt outside the observation period, or even trigger *crowding out* where fiscal expansion suppresses private investment. Therefore, the "insignificant" findings in this study are very likely, reflecting that the emergency budget allocation that was consumptive during the pandemic failed to provide a strong enough stimulus to economic growth.

However, the results of the study (Pratama et al., 2024) which examines G-20 member countries for the 2013-2022 period. In the study, government spending actually showed a negative and significant impact on economic growth, through a coefficient of -5.2491. This means that every 1% increase in government spending reduces economic growth, which is 5.25%.

The Effect of the Unemployment Rate on Economic Growth

The regression coefficient of the Unemployment Rate variable is -4.623620 with a linear pattern of relationship between the Unemployment Rate and Economic Growth and the probability is 0.0062 < 0.05, which means that unemployment has a significant negative impact on economic growth. So, every 1% increase in the unemployment rate can suppress economic growth, which is 4.62%.

The large number of these coefficients shows the high sensitivity of the ASEAN-5 economy to labor market shocks, as well as confirming the strong applicability of the Okun Law in the region. During the 2019-2023 period, the spike in unemployment not only had an impact on the loss of production output, but also hit the *demand-side* hard. The loss of jobs has had an impact on plummeting household income and purchasing power, which in turn lowers aggregate consumption, the largest component of GDP in many ASEAN countries.

These findings are consistent with the results of a study conducted by (Mufidah et al., 2025), which describes the unemployment rate as having a negative and significant impact on economic growth in the ASEAN region during the 2015-2023 period. The study also confirms that any 1% increase in the unemployment rate can lower the Gross Domestic Product (GDP) by about 2%, in line with Okun's Law which states that there is an inverse correlation between unemployment and economic growth.

These results show that high unemployment directly degrades national productivity and drives out economic activity. In research (Haldi & Khoirul Fuddin, 2024) proving that long-term unemployment has a significant negative impact on economic growth. They assert that the high unemployment rate undermines economic performance, due to the reduction of the potential output that can be produced by productive labor. This condition confirms that ASEAN's economic recovery is not enough with monetary stimulus alone, but depends on the creation of massive jobs in the real sector. This is in accordance with the principles outlined by Arthur Melvin Okun in his book on Okun's Law. According to Okun's Law, the unemployment rate will decrease along with the increase in the rate of economic growth because the two variables are inversely proportional (negative). High unemployment, according to Okun's Law, slows economic growth because it lowers national productivity, consumer purchasing power, and tax revenue (Astari et al., 2019).

Conclusion

Based on the findings of the panel data regression analysis through the FEM method on five ASEAN countries (Indonesia, Malaysia, Singapore, Thailand, and Vietnam) for the 2019–2023 period, this study concludes that FDI, population growth, government spending, and unemployment rates have different influences on regional economic growth. In the simultaneous context, these four variables have a significant impact on economic growth with an R^2 *value* of 0.739755, which means that 73.98% of the variation in economic growth in ASEAN can be described by this research model.

The findings partially describe that FDI has a significant positive impact on economic growth. The findings indicate that increased foreign investment flows play a crucial role in expanding production capacity, creating new jobs, and encouraging technology transfer and improving labor quality. The findings are relevant to Harrod-Domar and Solow-Swan's theories which assert that investment is a major factor in the process of capital accumulation and long-term economic growth. On the other hand, the population growth variable shows a negative and significant influence on economic growth. This condition reflects an increase in the total population without an increase in productivity and the availability of jobs can actually burden the economy, in accordance with Malthusian demographic theory which emphasizes the importance of a balance between the rate of population growth and the availability of resources.

Meanwhile, government spending did not have a significant impact on economic growth in ASEAN during the study period. This condition shows that fiscal policy has not been fully effective in encouraging long-term economic activity. This can be caused by budget allocation that is more focused on handling the COVID-19 pandemic, so that the multiplier effect on economic growth has not been optimal. These results also support Keynesian and neoclassical theories, in which the impact of government spending is highly dependent on the effectiveness and efficiency of its use. Furthermore, the unemployment rate has a negative and significant impact on economic growth. The findings are in line with Okun's Law (1962), which describes an increase in economic growth followed by a decrease in the unemployment rate, as increased production activity encourages job creation.

Overall, this study confirms that FDI is the main engine of economic growth in ASEAN, while population growth and unemployment are structural challenges that must be managed with the right economic policies. Governments of ASEAN countries need to strengthen policies that are able to attract quality foreign investment, grow the quality of human resources through education and training, and reorganize the effectiveness of public spending to be more productive and have a direct impact on people's welfare. Fiscal policies directed at productive sectors such as education, infrastructure, and technological innovation can improve economic efficiency while strengthening the long-term resilience of the ASEAN region.

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