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The Effect of Government Expenditure, Fixed Capital Investment, and Labor on Economic Growth in ASEAN-5 Countries

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Abstract

Economic growth usually shows how much a country has grown. The ASEAN-5 which includes Indonesia, Malaysia, Thailand, Singapore, and the Philippines are important for Southeast Asia's economy. This study examines the effect of government spending, gross fixed capital formation, and labor on economic growth in the period 2000–2023 using secondary data from the World Bank. This study applies panel data regression through the Fixed Effects Model (FEM). The findings show that government spending, gross fixed capital formation, and labor have a positive and significant impact on economic growth in the ASEAN-5 countries. Thus, the effectiveness of government spending, optimization of fixed capital investment, and utilization of productive labor are important factors in promoting sustainable economic growth in the region.

Keywords: Government Expenditure, Gross Fixed Capital Formation, Labor Force, Economic Growth, ASEAN-5

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INTRODUCTION

These days, every country cares a lot about economic growth. Rohima et al. (2023) say it basically shows how well a place is coming along. The rate of economic growth is an important indicator in assessing the success of development in a region. economic welfare within its borders. Gross Domestic Product (GDP) serves as one measure of economic development. GDP describes the total value of

goods and services produced within a country's borders during a specified period of time (Santoso, 2011).

ASEAN (Association of Southeast Asian Nation) has developed into one of the world's economic growth centers (Saptati, 2023). This organization encompasses ten countries in Southeast Asia that focus on enhancing economic, social, and political cooperation to promote sustainable growth in the region. ASEAN, with its growing population and strong production base, plays an important role in the dynamics of international trade. These conditions make the region not only influential in global trade flows, but also contribute to maintaining global economic stability (Wijaya et al., 2020).

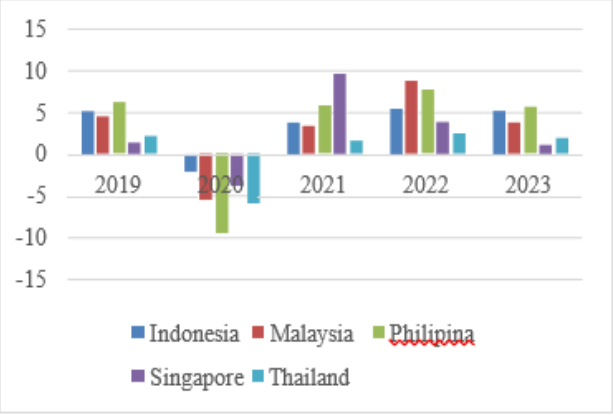

Figure 1. Annual GDP Growth (%) of Five ASEAN Countries in the Last Five Years
Source: World Bank, 2024

The ASEAN-5 group of countries, consisting of Indonesia, Malaysia, Singapore, Thailand, and the Philippines, plays a significant role in driving the regional economy. These five countries form an economic integration zone that is viewed as strategic by various countries outside the region. They are also known for having a more advanced level of economic development than other ASEAN members, as well as being centers of foreign investment, trade, and infrastructure development (Riyanto, 2020). Furthermore, the ASEAN-5 countries are listed among the top 60 countries in the Global Competitiveness Index, out of a total of 144 countries worldwide.

This position demonstrates the significant contribution of the ASEAN-5 to driving regional economic growth, along with continued GDP growth and high global competitiveness (Sugiyanto et al., 2024). Over the past five years, the dynamics of annual GDP growth across the five ASEAN countries have shown quite varied patterns. In the year before the pandemic (2019), all countries recorded positive growth. The Philippines topped the list with 6.12% growth, followed by Indonesia at 5.02% and Malaysia at 4.41%. Meanwhile, Thailand and Singapore recorded lower growth, at 2.11% and 1.35%, respectively.

One important factor driving this growth is the government's significant investment in strengthening the economy. Government spending plays a central role in economic activity (Kurniawati & Asyurrahman, 2018), both in the short and long term. In the short term, public spending creates new jobs, not only in the construction sector but also in other related sectors.

In the medium and long term, government spending contributes to increased resource utilization and production capacity across various sectors (Sari et al., 2020). Increased government investment, particularly in infrastructure such as transportation, energy, and telecommunications, also strengthens efficiency and boosts national productivity (Sari & Rejekiningsih, 2024). Therefore, the government's role through public spending is

crucial in supporting investment and driving sustainable economic growth.

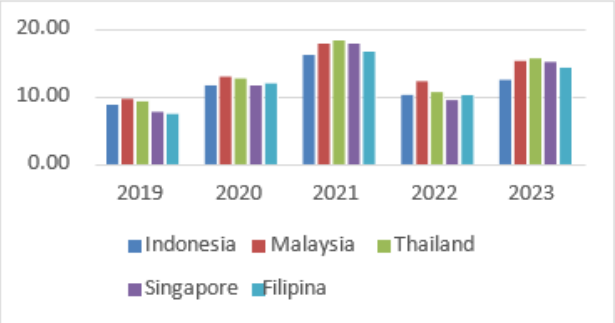

Figure 2. General Government Final Consumption Expenditure, (% of GDP)
Source: World Bank, 2024

So, the government spending money is super critical if we want more investment and steady economic growth. Another important tool in fiscal policy is government spending, which aims to boost overall economic performance in addition to enhancing public welfare (Awainah et al., 2024). According to Subardin et al. (2018), a nation's economic growth is ultimately the sum of its regional economic growth. The national economy will be encouraged to grow even more along with increased development when each region shows notable progress.

Over the previous five years, there has been a notable fluctuation in government spending throughout the ASEAN-5 as determined by the General Government Final Consumption Expenditure (GGFCE) indicator. The percentage of government spending in each nation stayed comparatively constant in 2019.

Thailand had the largest percentage of GDP (16.17%), followed by the Philippines (12.47%), Malaysia (11.65%), Singapore (10.25%), and Indonesia (8.81%). Thailand and the Philippines tend to be more active in fiscal intervention, which reflects the different structures of government spending. As 2020 got underway, the COVID-19 pandemic caused governments all over the world to increase their spending in response to the health and economic crises.

The percentage of GGFCE increased dramatically to 15.26% in the Philippines, 17.79% in Thailand, 12.96% in Malaysia, 12.23% in Singapore, and 9.66% in Indonesia. This surge reflects the magnitude of fiscal stimulus efforts to support the health sector, social assistance, and the recovery of businesses impacted by the pandemic.

At the global level, fixed capital investment is a key element driving growth. Fixed capital investment refers to expenditure on acquiring new fixed assets, repairing or adding to existing fixed assets. Fixed assets here include buildings, infrastructure, machinery, equipment, and other means of production used over the long term to support economic activity. (Hadi, 2016).

Equitable economic development is crucial, as the efficiency of an economy is also influenced by the quality of available infrastructure (Prasetyo, 2020). Economic growth is inseparable from various interrelated factors, such as capital accumulation realized through investment in land, equipment and machinery, supporting facilities, as well as natural and human resources in terms of quality and quantity (Igamo et al., 2020). In addition, technological advances, access to information, an innovative culture and the ability to continuously develop oneself, as well as a work culture that provides significant support to the rate of economic growth (Ma'rifah, 2022).

Several previous studies have examined the relationship between government spending,

investment, employment, and economic growth. Research examining the role of capital formation in economic growth has produced a range of insights. Ilham and Muharja (2024) argue that GFCF mainly helps G20 countries grow because it lets them produce more.

They believe these countries put more capital to good use, but that doesn't always play out in places with weaker systems. Nirmala et al. (2022) found something similar in OIC countries, although they put more weight on sustainability and long-term growth. So, it looks like GFCF's impact really depends on what each country values and how far they've come.

When looking at studies done on ASEAN, the story becomes different. Capital formation and government spending is always the focus, yet each author looks at these variables from different perspectives. For instance, while Jermsittiparsert et al. (2019) acknowledge the correlation between the government spending and growth in ASEAN-5, they do not delve into which expenditures are the most effective.

While Andinata et al. (2018) and Aprillia and Hariyanti (2014) state that without the region Sab.210, the advancement of the region would not be possible. However, due to the brevity of the studies, it is difficult to use their findings as a primary reference. Ula and Affandi (2019) have taken a different position that perhaps The combination of renewable energy and GFCF is the real growth engine rather than just GFCF alone.

The controversy over the relative importance of growing capital versus government spending (and to a lesser extent, job growth) is getting worse to the point of chaos. The number of comments on each side is overwhelming. Most of the controversy stems from how the researchers define the problem, how they choose their sample, and the economic structures of their countries. For example, the ASEAN-5 which consists of Singapore, Indonesia, Thailand, Malaysia and the Philippines, is a region that is not without similarities.

RESEARCH METHODS

This study uses secondary macroeconomic data and applies a quantitative approach. This study covers the years between 2000 and 2023 and the specific countries being looked at in this study include Indonesia, Malaysia, Thailand, Singapore and the Philippines. The COVID-19 virus and the 2008 financial crisis are two economically disruptive events and these are the events that greatly showcase the changes in these countries economies and the growth over time.

World Bank and the IMF are international financial institutions that provide consistent information over countries and these are the institutions that we pulled data from. Bear in mind, the data collected from each country and trying to compare them with each other would have created a disorganized study, outcome wise. Our data was then funneled into Eviews 13.

Prior to running any statistical analyses, we performed preliminary tests in order to validate the robustness of our intended outcomes. Our models were then subjected to three different methodologies, including the Common Effect, the Fixed Effect, and the Random Effect.

After which we performed the Chow and Hausman tests in order to identify the best fit in terms of the model we could use for our data. Last, we checked if the model we picked was any good using R-squared, t-tests, and F-tests. Panel regression was chosen because it allows

variation across countries and over time to be analyzed together. In my view, using only a time-series or cross-sectional model would not have captured the differences in economic conditions within the ASEAN-5.

GDP growth (current US$) serves as the dependent variable, while government final consumption expenditure, gross fixed capital formation, and labor are the independent variables. All variables were transformed into natural logarithms to make the coefficients easier to interpret. The model used can be written as:

$$\text{Log(GDPit)} = \beta_0 + \beta_1 \text{Log(GEit)} + \beta_2 \text{Log(INFit)} + \beta_3 \text{Log(LABORit)} + \varepsilon it,$$

Where the coefficients (β_0, β_1, β_2, and β_3) measure the effect of each variable, GDP represents the countries GDP growth, GE represents the goverment expendictures, INF represents gross fixed capital formation, LABOR represents the worker count, and εit represents other influences not included in the model, and i and t indicate country and year.

RESULTS AND DISCUSSION

Five ASEAN nations Malaysia, Indonesia, Thailand, Singapore, and the Philippines from 2000 to 2023 are included in the dataset used in this analysis. The dataset has 120 country-year entries since each country has 24 annual observations. This quantity of data was useful since it gave the panel analysis sufficient variation over time and between nations.

The GDP variable (LOG_GDP) has an average of 26.39, a median of 26.45, a minimum of 25.09, and a maximum of 27.95, according to the descriptive analysis results. It can be inferred that the distribution of GDP statistics is very much balanced as the average and median values are close to each other.

Table 1. Descriptive Statistics Output

	LOG_ GDP	LOG_ GE	LOG_ INF	LOG_ LABOR
Mean	26.388	24.205	24.962	16.966
Median	26.452	24.306	25.065	17.407
Maximum	27.946	25.421	26.720	18.766
Minimum	25.091	22.860	23.394	14.575
Std. Dev.	0.685	0.720	0.782	1.270
Skewness	0.103	-0.178	0.293	-0.483
Kurtosis	2.593	1.988	2.812	2.171
Jarque-Bera	1.043	5.748	1.896	8.107
Probability	0.593	0.056	0.387	0.017
Sum	3166.67	2904.65	2995.52	2035.93
Sum Sq. Dev.	55.973	61.690	72.845	192.103
Observations	120	120	120	120

Source: Data Processed, 2025

Government Expenditure variable (LOG_GE) features a minimum value of 22.86, a maximum of 25.42, a median of 24.31, and an average of 24.21. Such a scenario points out a fairly stable government expenditure data distribution with a small range of variation. As such, the Infrastructure variable (LOG_INF) has an average value of 24.96 with a median of 25.07, a minimum value of 23.39, and a maximum value of 26.72.

This indicates that the infrastructure data tends to be normal because the average value is close to the median. The average LOG_LABOR is 16.97, but the middle value is 17.41. It dips to 14.58 and goes up to 18.77. These numbers jump around more than other things we looked at. This shows the worker count changes from country to country and at different times in our study. After this, we ran a Chow test to help decide between CEM and FEM, and a Hausman

test to help decide between FEM and REM. Table 2 shows the Chow test results. Since the probability value (0.0000) is less than 0.05, we accept the alternative hypothesis (Ha). So, the Fixed Effect Model (FEM) is the way to go.

Table 2. Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	35.863282	(4,112)	0
Cross-section Chi-square	98.944808	4	0

Source: Data Processed, 2025

To figure out if FEM or the Random Effect Model (REM) is a better fit for the panel data regression, we used the Hausman test. Based on the results presented in Table 3, the probability value of 0.0000 is lower than the predetermined significance level of 0.05. Therefore, the null hypothesis (Ho) is rejected. It is concluded that the most suitable estimation model is the Fixed Effect Model (FEM).

Table 3. Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	142.866507	3	0

Source: Data Processed, 2025

Based on these findings, the researchers continued with statistical tests in accordance with the selected model. Based on table 4 the following equation model was obtained:

$$LOG\_GDP = -2.461 + 0.469LOG\_GE + 0.310LOG\_INF + 0.573LOG\_LABOR$$

The constant value was negative at -2.461 and significant, indicating that if government spending, infrastructure, and labor variables were considered constant, GDP would be at a negative base value.

Table 4. Estimation Results of the Fixed Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.461	0.984	-2.500	0.013
LOG_GE	0.469	0.049	9.405	0.00
LOG_INF	0.31	0.048	6.426	0.00
LOG_LABOR	0.573	0.079	7.239	0.00
R-squared	0.991			
Adjusted R-squared	0.99			
F-statistic	1.796 254			
Prob(F-statistic)	0.000			

Source: Data Processed, 2025

The government expenditure variable has a coefficient of 0.4690 and is significant at the 1% level, meaning that a 1% increase in government expenditure will drive a 0.469% increase in GDP in the ASEAN-5 countries. Furthermore, the infrastructure variable also has a positive effect with a coefficient of 0.310 and is significant at the 1% level, indicating that a 1% increase in infrastructure investment will increase GDP by 0.311%.

The labor variable has the largest coefficient of 0.573 and is significant at the 1% level, so it can be concluded that a 1% increase in labor will increase GDP by 0.574% and is the most dominant factor in economic growth. In terms of model goodness, the R-squared value of 0.991 indicates that 99.12% of GDP variation can be explained by the independent variables in the model, while the rest is influenced by other

factors outside the model. Prob(F-statistic) of 0.000 confirms that the model is significant overall.

The Prob(F-statistic) value of 0.000 < 0.05, so it can be concluded that Ha is accepted and Ho is rejected. This indicates that simultaneously, the variables of Government Expenditure (LOG_GE), Infrastructure (LOG_INF), and Labor (LOG_LABOR) have a significant effect on economic growth (LOG_GDP) in the ASEAN-5 countries, namely Indonesia, Malaysia, Thailand, Singapore, and the Philippines during the period 2000 to 2023.

The regression output results with the Fixed Effect Model (FEM) show that the R-squared value is 0.991171 and the Adjusted R-squared is 0.990619. This means that the independent variables used in the study, namely Government Expenditure (LOG_GE), Infrastructure (LOG_INF), and Labor (LOG_LABOR), together explain 99.14% of the variation in economic growth, while the remaining 0.86% is explained by other factors outside the scope of this study.

Based on the estimation results using the Fixed Effect model, it was found that the government expenditure variable had a coefficient of 0.469000 with a probability value of 0.0000. This means that government expenditure has a positive and significant effect on economic growth in the ASEAN-5 countries at a significance level of 1 percent. government expenditure may result in a 0.469 percent increase in economic growth, ceteris paribus.

Othman et al. (2018) said the effect of the government's spending is mixed and depends on the productivity of the use of that spending. It implies that the government spending in the ASEAN-5 area has not been entirely released for the development of infrastructures that have a direct impact on economic growth. Moreover, government spending is not the main factor that causes the growth of the macroeconomy. According to Wagner's theory, government expenditures will tend to increase at a rate faster than the Gross Domestic Product (GDP) as the economy of a country expands (Irandoust, 2019). One of the major reasons for this is the rise in the public demand for social services and facilities.

Regarding ASEAN-5, while there has been a rise in government expenditure on infrastructural development, the extent to which the growth of the economy has been influenced by such spending is still ambiguous (Jama et al., 2024). Besides, it may be justified through the lens of Uneven Development Strategy by Albert O. Hirschman (1958), whereby development is not a matter of simultaneity and efficiency in sectors.

Here, government expenditure that is not entirely devoted to sectors like infrastructure or economic activities producing goods and services results in the underutilization of resources, thus there may be a decline in economic growth. It accords with Wagner's Theory as well that expresses an increment of national income will inspire more government spending, including on infrastructure and public services.

Adolph Wagner pointed out that the economic development leads to the public demand for new social services, so government spending will rise accordingly (Inchauspe et al., 2022). Nevertheless, if we consider the five ASEAN countries, this rise has not been instrumental in accelerating the growth of the economy. The reason behind this is the ineffective manner in which the budget has been allocated, thus, most of the government

expenditures are still of a consumptive nature and have not been directed towards productive sectors optimally.

Jermsittiparsert et al. (2019) conducted comprehensive research that showed that among the factors government spending, gross fixed capital formation, trade, and portfolio investment had a considerable impact on economic growth in ASEAN-5 countries (Indonesia, Malaysia, Thailand, Philippines, and Singapore) during the period 1990-2014.

A panel data approach was used in the study, and the results indicate that government spending is the main driver of economic growth as it exerts a positive and significant impact. Thus, it is worth noting that transfer expenditures take a leading role in energizing the economy of the ASEAN region. So, Nordin et al. (2024) checked out how government spending affects economic growth in ASEAN countries using the Panel ARDL thing.

Turns out, government spending doesn't boost the economy right away. It's kinda weak and not a big deal in the short term 'cause, you know, government projects take time to get going and for the economy to feel them Investments are kind of like those arcade games where you drop a coin, and you just have to wait and see if a bigger prize drops, but instead, let's have patience, it'll be worth it at the end. One example of this is the construction of roads and schools. Sure, they work over time, but they don't boost productivity right away, so chasing quick results is a waste of time.

Babatunde (2018) saw the same phenomenon in Nigeria. the economy obviously grew as the government started spending on transport, communication, education, and healthcare. But if you just threw money at agriculture and natural resources? Nothing moved. o you see, it's just as important where you spend to how much you spend. Other researchers have noticed this phenomenon as well. Spending on transport, communication, education, and healthcare went a long way, while spending on farming and natural resources actually hampered it, as pointed out by Babatunde (2018).

So it’s not just the amount of the budget that matters, it’s what you do with it. This has also been seen in Ibrahim (2023). Spending by the government in areas such as transport, education, and healthcare certainly increases the productivity of the infrastructure. He also argued the role of the private sector, stating that it streamlines processes and helps ease the burden on the government’s budget.

Long-term investments such as better transport, energy, and construction facilities positively impact the economy. The GFCF figure shows that, if capital expenditure\, GFCF, increases by 1%, economic output increases by 0.31%, as noted by the sensitivity measure 0.310994, with a statistical significance of (p=0.0000). Therefore, investing in the long factors that positively affect economic operations enables companies to be more efficient and expand their market reach.

The results are not limited to Southeast Asia. Ilham and Muharja (2024) stated that, although there is a disparity in the economic systems, G20 countries still base their economic growth on capital investments. Furthermore, old growth economic theories support these results.

Harrod and Domar suggest that capital is a necessary and sufficient factor of production, while Nurkse posits that there is always a solution to every economic problem, and smart investments stimulate business activity. Given these factors, capital investments extend beyond

purchasing tangible assets, such as equipment, to creating an enabling environment that promotes economic activity.

Numbers fluctuate here, but in Southeast Asia, researchers found patterns in data. Aprillia and Hariyanti (2014) noticed a larger impact: 0.556. Ula and Affandi (2019) noticed GFCF and growth to have a near identical figure. Some of these divergences are likely attributed to the variety of sectors and/or the ways in which the projects are executed.

Beyond Southeast Asia, Nirmala et al. (2022) and Andinata et al. (2018) both discovered favorable findings. Andinata's group showed that the GDP increase was approximately $2.82 million for every additional $1 million of capital expenditure. \n \n The unfortunate part is that simply investing in fixed capital and/or GFCF is not a recipe for success.

If a capital investment is poorly structured and/or maintained, it effectively is a wasted resource. Mechanisms that are irrelevant to the economy simply take up space. Therefore, if the country wants to continue progress, it is not how much is GFCF, but how and where it is GFCF that is important.

To be frank, our findings really do confirm that more employees contribute to economic growth. When a region's workforce increases by 1%, the output will rise by 0.57% over a certain period, holding all else equal. This is particularly the case in Southeast Asia, which is still abundant in jobs that require extensive manual labor. More employees means more production and faster distribution of available goods.

This empirical finding fits in with the theory of most economists for decades. The Keynesian theory of demand and Harrod-Domar's construction theory are mostly concerned with the same. Nurkse's theory of balanced growth also explains the positive impact of distributing labor to different economic activities. Empirical studies suggest, however, that these effects are context-specific.

Capridasari (2024) presents stronger effects of labor where use of the internet complements the work. Rochmahwati (2023) also finds that labor is a determinant of output in Java at the regional level. Wahyuningtias et al. (2019) emphasizes that the benefits are more significant when the increase in the workforce is accompanied by more skills and greater productivity. This suggests that policy makers should be concerned with the quantity and the quality of the workforce to ensure benefits that will last.

The regression equation for panel data has an intercept, which means that if government spending, fixed capital investment, and labor are at their lowest levels, GDP will change by the value of the intercept. The intercept value for each country is the sum of the regression constant and the individual effects.

Table 5. Intercept

Country	C	CI	C+CI
FILIPINA--C	-2.461	-0.308	–2.770
INDONESIA--C	-2.461	-0.694	–3.155
MALAYSIA--C	-2.461	0.246	–2.215
SINGAPORE--C	-2.461	1.183	–1.278
THAILAND--C	-2.461	-0.426	–2.888

Source: Data Processed, 2025

Based on the intercept values in table 5, the GDP model equation for each country can be formulated with differences in the intercept values. The Philippines has an intercept of -2.770, Indonesia -3.155, Malaysia -2.215,

Singapore -1.278, and Thailand -2.888. These differences in intercept values reflect variations in each country's baseline GDP levels when government spending, fixed capital investment, and labor are held at their minimum or constant values.

Indonesia's GDP will decrease by roughly 3.16 when all independent variables are at their lowest values, according to the country's intercept of -3.155. The results show that Thailand (-2.888) and the Philippines (-2.770) have pretty big negative intercepts. Basically, if you took out all the other factors, their GDP would drop a lot more than the others. On the other hand, Singapore (-1.278) and Malaysia (-2.215) don't see as steep a decline. Out of all of them, Singapore's intercept is the smallest, which really shows how steady its economy is compared to the rest.

CONCLUSION

So, after digging into the numbers with a Fixed Effect Model for Indonesia, Malaysia, Thailand, Singapore, and the Philippines from 2000 to 2023, a few things stand out. The three main contributors to the growth of the economy in these countries are the government spending, actual capital investment, and labor.

To explain this, if the government spends money, then the growth in the GDP is approximately 0.469 percent. That is how much of the economy is shaped by fiscal policy. However, the direction of spending does matter. The results are increased with infrastructure, education, and other public spending, as opposed to merely routine unproductive spending.

The growth in the GDP as a result of spending on investment, such as large machinery, is about 0.310 percent. This is reasonable as there will be better results in the longer term if money is spent on things that enable the workforce to be more productive. However, the and labor results in the highest increase, approximately 0.573 percent.

So, if these countries want to continue growing and be competitive, this is what is to be expected of them. Better strategies on public spending, continual spending on more productive capital and formation of a more educated labor force. That's the recipe for long-term, sustainable growth in the ASEAN-5.

REFERENCES

Andinata, C. P., Adenan, M., & Jumiati, A. (2018). Analisis Pendapatan Nasional di Negara- negara Anggota ASEAN). Jurnal Ekonomi Ekuilibrium (JEK), 2(1), 31–44.

Aprillia, & Hariyanti, D. (2014). Determinasi Pertumbuhan Ekonomi Di Negara Asean-6. Media Ekonomi, 22(3), 205–220. https://doi.org/10.25105/me.v22i3.3192

Awainah, N., Sulfiana, Nurhaedah, Jamaluddin, & Aminullah, A. (2024). Peran Infrastruktur Dalam Mendorong Pertumbuhan Ekonomi Dan Peningkatan Kualitas Hidup Masyarakat. Jurnal Review Pendidikan Dan Pengajaran, 7(3), 6847–6854. http://journal.universitaspahlawan.ac.id/index.php/jrpp

Babatunde, S. A. (2018). Government spending on infrastructure and economic growth in Nigeria. *Economic Research-Ekonomska Istrazivanja* , *31*(1), 997–1014. https://doi.org/10.1080/1331677X.2018.1436453

Capridasari, D. (2024). Peran Ekonomi Digital Dan Ketenagakerjaan Dalam Mendorong Pertumbuhan Ekonomi: Studi 5 Negara Asean. Jurnal Ilmu Ekonomi JIE, 8(01), 52–67. https://doi.org/10.22219/jie.v8i01.31764

Hadi, P. U. (2016). Performance, Prospect and Policy of Investment in Indonesia. *Analisis Kebijakan Pertanian*, *8*(2), 151. https://doi.org/10.21082/akp.v8n2.2010.151- 165

Ibrahim, V. H. (2023). Government Expenditure and Infrastructural Development in Nigeria: An Empirical Analysis of its Economic Effects. *NIU*

Journal of Social Sciences, *9*(2), 101–110. https://doi.org/10.58709/niujss.v9i2.1630

Igamo, A. M., Sari, D. D. P., Sukanto, & Shaleh, S. (2020). *Economic Growth, Export, Debt, and FDI: The Agriculture Case of Indonesia*. *142(Seabc 2019), 208–211*. https://doi.org/10.2991/aebmr.k.200520.036

Ilham, M., & Muharja, F. (2024). Dampak GFCF, HDI, dan R&D terhadap Pertumbuhan Ekonomi Negara G20. *Journal of Education Research*, *5*(4), 6449–6455. https://doi.org/10.37985/jer.v5i4.1974

Inchauspe, J., MacDonald, G., & Kobir, M. A. (2022). Wagner's Law and the Dynamics of Government Spending on Indonesia. *Bulletin of Indonesian Economic Studies*, *58*(1), 79–95. https://doi.org/10.1080/00074918.2020.181183 7

Irandoust, M. (2019). Wagner on government spending and national income: A new look at an old relationship. *Journal of Policy Modeling*, *41*(4), 636–646. https://doi.org/10.1016/j.jpolmod.2019.02.003

Jama, A. B., Mohd Daud, S. N., & Nayan, S. (2024). The relationship between government expenditure and economic growth in ASEAN-5 countries. *Journal of Infrastructure, Policy and Development*, *8*(7). https://doi.org/10.24294/jipd.v8i7.4329

Jermsittiparsert, K., Saengchai, S., Boonrattanakittibhumi, C., & Chankoson, T. (2019). The Impact of Government Expenditures, Gross Capital Formation, Trade, and Portfolio Investment on The Economic Growth af Asean Economies. *Journal of Security and Sustainability Issues*, *9*(2). https://doi.org/http://doi.org/10.9770/jssi.2019.9.2(16)

Kurniawati, S., & Asyurrahman. (2018). Pembangunan Infrastruktur dan Pertumbuhan Ekonomi di Provinsi Kalimantan Barat. *Prosiding SATIESP*, 127–143. https://feb.untan.ac.id/wp-content/uploads/2020/02/9.-Sri-Kurniawati.pdf

Ma'rifah, A. (2022). The Effect of Infrastructure Development on Economic Growth. *Efficient: Indonesian Journal of Development Economics*, *5*(3), 230–241. https://doi.org/10.15294/efficient.v5i3.54394

Nirmala, T., Suparta, I. W., & Anisa, S. (2022). Remitansi dan Pertumbuhan Ekonomi: Studi Empiris Di 5 Negara ASEAN. *Jurnal Manajemen Bisnis Islam, 3(2), 251–272*. https://doi.org/10.24042/revenue.v3i2.13340

Nordin, N., Nordin, N., Hussin, N. S. N., Aziz, Z. A., & Mukhtar, D. (2024). The Impact of Government Development Expenditure on Economic Growth in ASEAN Countries. *IPN Journal of Research and Practice in Public Sector Accounting and Management*, *14*(2), 103–123. https://doi.org/https://doi.org/10.58458/ipnj.v14.02.06.0109

Othman, N., Yusop, Z., Andaman, G., & Ismail, M. M. (2018). Impact of government spending on fdi inflows: The case of asean-5, China and India. *International Journal of Business and Society*, *19*(2), 401–414.

Prasetyo, G. A. (2020). *Terhadap Pertumbuhan Ekonomi Di Asean*. 1–22.

Riyanto, F. D. (2020). Are Asean 5 Countries Suitable for Optimum Currency Area? Exchange Rate Approach. *JIET: Jurnal Ilmu Ekonomi Terapan*, *5*(2), 107–120. https://doi.org/10.20473/jiet.v5i2.23615

Rochmahwati, M. R. (2023). Analisis Pengaruh Teknologi Digital Terhadap Pertumbuhan Ekonomi di Pulau Jawa. Jurnal Ilmu Ekonomi JIE, 7(03), 369–380. https://doi.org/10.22219/jie.v7i03.27050

Rohima, S., Junaidi, J., Nasyaya, A., & Hamira, H. (2023). Analysis of Human Development Index, Government Expenditure, Exports and Imports on Economic Growth in ASEAN-5. *Jurnal Ekonomi Pembangunan, 12(2), 92–101.* https://doi.org/10.23960/jep.v12i2.1171

Santoso, Y. (2011). Pengertian Gross Domestic Product. Universitas Atma Jaya Yogyakarta, 12–25.

Saptati, R. (2023). ASEAN Diyakini Jadi Pusat Pertumbuhan Dunia. Media Keuangan Kemenkeu. https://mediakeuangan.kemenkeu.go.id/article/show/asean-diyakini-jadi-pusat- pertumbuhan-dunia-ini-alasannya

Sari, D. D. P., Sukanto, S., Marwa, T., & Bashir, A. (2020). The Causality between Economic Growth, Poverty, and Stunting: Empirical evidence from Indonesia. *Jurnal Perspektif Pembiayaan Dan Pembangunan Daerah, 8(1), 13–30.* https://doi.org/10.22437/ppd.v8i1.8834

Sari, D. M., & Rejekiningsih, T. W. (2024). Pengaruh Pengeluaran Sektor Publik Terhadap Pertumbuhan Ekonomi di Negara ASEAN. Jurnal *Ilmiah Keagamaan Dan Kemasyarakatan, 18(4), 2628–2646.* https://doi.org/DOI:10.35931/aq.v18i4.3571

Subardin, M., Susetyo, D., Kadir, S. A., & Suhel, S. (2018). Economies of Scale and Efficiency of the Pulp Industry in Indonesia: Cobb- douglas Cost Function Approach. *International Journal of Economics and Financial Issues*, *8*(4), 284–289. http:www.econjournals.com

Sugiyanto, R., Budiarty, I., & Yuliawan, D. (2024). Analisis Kinerja Pertumbuhan Ekonomi di 5 Negara ASEAN. *Jurnal Bisnis Dan Ekonomi, 2(04), 590–599.* https://doi.org/https://doi.org/10.61597/jbe-ogzrp.v2i4.75 Ciptaan

Ula, T., & Affandi. (2019). Dampak Konsumsi Energi Terbarukan Terhadap Pertumbuhan Ekonomi : Studi di Asia Tenggara. Journal of Economics Science, 5(2), 26–34.

Wahyuningtias, A. D., Sasana, H., & Sugiharti, R. R. (2019). Analisis Pengaruh Perkembangan Ekonomi Digital terhadap Pertumbuhan Ekonomi di Indonesia Tahun 1996-2019. *DINAMIC: Directory Journal of Economic*, *3*, 88–105.

Wijaya, E., Anggraeni, R., & Albar, A. A. (2020). Peran Association of Southeast Asian Nations Dalam Pembentukan Hukum Perdagangan Internasional Di Kawasan Asia Tenggara. *Mimbar Keadilan*, *13*(2), 173–184. https://doi.org/10.30996/mk.v13i2.3498