

Factors Influencing Growth of Gross Domestic Product In 6 ASEAN Countries

Wisnu Yuwono¹, Sun Bhuan^{2*} & Nasar Buntu Laulita³

^{1,2,3}Fakultas Bisnis dan Manajemen, Universitas Internasional Batam, Batam, Indonesia
Jl. Gajah Mada, Tiban Indah, Kec. Sekupang, Kota Batam, Kepulauan Riau 29426

*e-mail : : 2041341.sun@uib.edu

Artikel Info

Received :

12 December 2023

Revised :

14 Desember 2023

Accepted :

24 December 2023

Kata Kunci :

Ekspor, Pertumbuhan
PDB, Inflasi, Investasi
Asing Langsung,
ASEAN

Keywords :

Export, GDP Growth,
Inflation, Foreign
Direct Investment,
ASEAN

ABSTRAK

Penelitian ini bertujuan untuk menganalisis adanya pengaruh ekspor, *foreign direct investment*, inflasi, dan *gross national income* terhadap pertumbuhan produk domestik bruto di 6 negara ASEAN yaitu Indonesia, Malaysia, Singapore, Thailand, Philippines dan Vietnam. Penelitian ini termasuk penelitian kuantitatif dengan jenis data sekunder yang bersumber dari World Bank, BPS, Bank Indonesia, Macrotrend, Micromacro dalam periode pengamatan dari 2011 hingga 2022. Metode penelitian ini menggunakan regresi data panel. Hasil penelitian menunjukkan jika terdapat variabel ekspor dan *gross national income* berpengaruh positif dan signifikan mempengaruhi pertumbuhan PDB, *foreign direct investment* berpengaruh positif namun tidak signifikan, Inflasi berpengaruh negatif dan signifikan terhadap Pertumbuhan PDB 6 Negara ASEAN.

ABSTRACT

This study aims to analyse the effect of exports, foreign direct investment, inflation, and gross national income on gross domestic product growth in 6 ASEAN countries, namely Indonesia, Malaysia, Singapore, Thailand, Philippines and Vietnam. This research includes quantitative research with secondary data sourced from the World Bank, BPS, Bank Indonesia, Macrotrend, Micromacro in the observation period from 2011 to 2022. This research method uses panel data regression. The results showed that if there were export variables and gross national income had a positive and significant effect on GDP growth, foreign direct investment had a positive but insignificant effect, inflation had a negative and significant effect on GDP growth in 6 ASEAN countries.

INTRODUCTION

Economic development in a country is seen from how the country's economic growth. Increased economic growth can accelerate Economic Development. Increased national income causes economic growth to occur. The increase in national income is seen from the amount of GDP produced by the country (Destian & Laut, 2022). Gross domestic product growth is the main indicator to measure how healthy a country's economy is in a certain period. A growing economy is seen from an increase in the production capacity of products or services produced by a country from the previous period (Hamzah et al., 2023). The economic growth of ASEAN countries is one of the special concerns for global countries where economic growth is stable from year to year, especially in the era of globalization which makes competition between countries increasingly fierce, ASEAN countries include Indonesia, Singapore, Malaysia, Thailand, Philippines and Vietnam which are known as agricultural countries with abundant natural resources owned and rapid population growth from year to year so that they can affect the global economy. The purpose of the formation of ASEAN is to accelerate the economic growth of its member countries (Khairunisa et al., 2022). The economic growth of a country is influenced by several factors, one of which is the limited ability of the country to meet domestic needs so that global economic cooperation through international trade is needed to improve people's welfare and encourage economic growth by focusing on meeting domestic needs (Yogatama & Hidayah, 2022).

Economic growth influenced by other macroeconomic factors, namely inflation, investment levels, exports and imports, and gross national income (Putra & Soebagiyo, 2023). Macroeconomics is the study of the entire global economy. This science is needed to analyse and design policies related to economic growth, inflation, employment, and so on. These policies need to be carefully designed and analysed so that they can maintain the stability of the global economy in the short and long term (Rinaldi et al., 2017). Macroeconomics covers factors that affect the economy as a whole, such as economic growth, national income, inflation rate, unemployment rate, and monetary policy. This knowledge will be useful for making decisions in managing resources and achieving economic stability and growth (Erdkhadifa, 2022). Economic growth is known as Gross Domestic Product. The value of Gross Domestic Product is a measure of the economic development of the country. Basically, Gross Domestic Product is the total value of final products and services produced by all economic units in a country in a certain period. A comparison of the GDP value from the current year to last year can be used to see how much economic growth from year to year (Yollanda & Hasanah, 2023). An increase in GDP can reflect the welfare of the people in a country, with an increasing GDP indicating that people's income is increasing as well (Pebrianto, 2018). In addition, an increasing gross domestic product indicates that economic growth is expanding due to various other economic activities. Increased production of goods and services is in line with increased public consumption. A significant increase in GDP attracts foreign investors to enter and bring in new technology and other resources to accelerate economic growth (Candy & Winardy, 2019).

Foreign investment is considered the main driver of economic growth. Foreign investment is the flow of capital originating from abroad that flows into the private sector either through direct investment or indirect investment (portfolio investment). Capital is an asset in the form of money or other forms that are not money owned by investors that have

economic value (P. K. Dewi & Dewi, 2019). According to Afifah et al., (2019), the higher the value of investment in a country, the higher the level of productivity and the results affect economic growth significantly in developing countries. Research by C. N. P. Sari et al. (2019) proves that investment has a significant positive effect. The increase in investment that occurs can increase production capacity and create new jobs so that it will affect economic growth. Contrary to research by Nadzir & Kenda (2023) which shows the results of foreign investment insignificance effect on economic growth. This is seen based on the results of his research which show that there was a decrease in foreign investment, but the economy continued to grow positively. Similar results were also found in the research of Alice et al. (2021) that FDI insignificance effect on economic growth. This is due to foreign investment entering the non-productive sector, namely the monetary or banking sector which tends to be speculative (Alvaro, 2021).

Inflation is the process of increasing the price of a good or service continuously over a period. This variable measures the inflation rate in the economy during the study period. Inflation can be measured by the consumer price index. Consumer Price Index (CPI) inflation is a metric that measures the rate of inflation, or the general increase in prices of goods and services consumed by households. The consumer price index reflects the average price change of the group of goods and services represented in a consumer's shopping basket. Consumer price inflation is calculated by comparing the current price index with the price index of the previous period (Karlina, 2017). An increase in the consumer price index indicates that consumers' cost of living has increased over time. This can be caused by several factors, namely rising production costs, rising labour costs, changes in supply and demand, and monetary or fiscal policy. If CPI inflation is high, consumer purchasing power may weaken. Higher prices of goods and services indicate that consumers must spend more money to buy the same goods. This may affect consumers' consumption levels and lifestyles. CPI inflation can also affect the value of a country's currency. In the event of high inflation, the value of the currency tends to fall, which may affect the competitiveness of the country's exports and imports (Kurniawan, 2022).

Inflation is the process of continuously rising prices of a product or service over a period. The large circulation of money in society is one of the reasons why inflation occurs. Inflation greatly affects economic growth because inflation reduces the value of money and people's purchasing power weakens when the prices of all products and services rise. Bank Indonesia uses monetary policy to raise interest rates so that people withdraw money circulating in society and keep their money in banks (Meilaniwati & Tannia, 2021). Research by Hesniati et al. (2022) found that inflation has a significant negative effect on foreign exchange reserves. This proves that when inflation is high, all prices of goods will increase including raw materials to produce goods so that producers tend to reduce the amount of production. According to Sella & Ardini (2022), demand for products that exceed production capacity and existing supply results in prices continuing to increase, especially the limited number of products will have an impact on the reduction of goods to be exported so that it will reduce incoming foreign exchange reserves. This will also affect the country's ability to pay foreign debt and import goods from other countries to meet the needs of the community. The same thing was also found in Z. Dewi & Husein (2022), high inflation will make the price of local products tend to be expensive compared to foreign products, thus reducing the

purchasing power of local people towards local products. This tendency will drain the country's foreign exchange reserves if local people choose to buy imported goods.

Research by Ronaldo (2019) found that the inflation variable had no significant effect on economic growth. This happens because not all inflation has a negative impact on the economy. Mild inflation will encourage investors and entrepreneurs to increase production and create new jobs. In contrast to the results of research by Sari et al. (2019) which found that inflation has a negative and insignificant effect on economic growth, while Kartika & Pasaribu (2023) states that inflation has a positive and significant effect on economic growth and the results of research (L. P. Sari et al., 2021) which state that inflation has no effect on economic growth.

Not only inflation but the level of investment also affects the economic growth of developing countries where FDI contributes greatly to the economic growth of developing countries that have high consumption levels but low productivity levels so that limited capital becomes an obstacle for developing countries to spur increased economic growth (Humaira & Agustiar, 2022). Community welfare is also measured based on the amount of per capita income received, national income is the total of all income received by the community. The level of per capita income received affects people's purchasing power and standard of living (Batubara & Batubara, 2023). National income is a reflection of a country's economic condition. National income is measured by the total amount of income received by the country in a certain period (Purwanto & Siswahadi, 2021). The level of purchasing power can be seen from the amount of income received so that the greater the income, the higher the consumptive level of society. National income plays an important role in determining the direction of a country's economic growth (Andinata et al., 2018).

Community welfare is strongly influenced by the level of national income. The better a country's economic growth, the more able the country is to meet the needs of the community, raise people's living standards and create new jobs as the population grows rapidly (Kustiawati et al., 2023). The national income of each varies depending on the amount of revenue and expenditure of the country from abroad. GNI can be calculated by adding the income received by citizens from their investments abroad and subtracting the income received by foreign citizens from their investments at home (Odoemelum et al., 2020). Foreign investment has a significant positive effect on national income because foreign direct investment brings new technology and skills that make companies more effective and increase productivity as well as open new business opportunities and stimulate related sectors which will indirectly accelerate high economic growth and have a positive impact on gross national income (Ani & Onu, 2022).

The rapid development of the world is in line with the increasing need for consumer goods and services but the country cannot meet all existing needs so that assistance is needed from neighbouring countries to meet domestic needs which causes international transactions or trade involving export and import activities and foreign currencies (E. R. Dewi, 2022). International trade is a trading relationship between countries by trading goods or services through export and import activities so that the countries involved gain economic benefits. International trade is an important aspect in measuring the achievement of global economic growth, both theoretically and empirically. This is related to the increasing impact of international trade on the economic welfare of a country (Novariani et al., 2021). Given that there are several important points to consider in international trade activities, among others,

are differences in currencies that will be used as a medium of transaction between one or more than one country, reliable resources to produce quality products that will be traded across countries and import policies that must be considered by exporters including tariffs imposed (Suprpto et al., 2023).

Exports play a very important role in a country's economy. Exports can be the engine of a country's economic growth and sustainable development. When the volume and value of exports increase, domestic production, employment and infrastructure development supporting the export sector can take place in the country, allowing an increase in per capita income, creating jobs and improving people's living standards (Komariyah et al., 2019). Export is an activity related to trade, namely selling goods in the form of products or services abroad. The greater the level of export activity, the more the country benefits because it gets income in the form of foreign exchange. Another definition is the total value of goods and services sold by a country to other countries in a certain period. The value of exports can include various sectors such as industry, agriculture, mining, and services (Hodijah & Angelina, 2021). Increased export volume and value has an impact on the process of developing supporting infrastructure and increasing domestic production capacity, expanding employment opportunities, and improving people's living standards (Komariyah et al., 2019). The higher value of exports indicates that strong foreign market demand creates jobs, which leads to lower unemployment and increased prosperity (Ngatikoh & Faqih, 2020).

According to Agustina et al. (2023), export activities have a positive impact on economic growth where through exports, the country gets foreign exchange reserves as a form of income. Foreign exchange reserves are stocks of foreign currency that are owned and can be used at any time for international transactions or payments to maintain monetary stability. Foreign exchange reserves held by the Central Bank are mostly used to finance international transaction activities such as import financing and debt to foreign parties (Titus et al., 2022). Foreign exchange reserves used to stabilize the exchange rate are not much, so the exchange rate will depreciate (weaken). This is due to the large amount of foreign exchange reserves but not used properly which should not only be for international transaction activities (imports and paying debts) but also to stabilize the exchange rate. That way, foreign exchange reserves are not only to finance imports and pay foreign debt, but are able to stabilize the rupiah exchange rate against foreign currencies (Maftukha & Aminda, 2021).

Strengthened by research by Supiyadi & Anggita (2020) which shows that economic growth is strongly influenced by the increasing value of exports, which will increase the amount of domestic production in both the oil and gas and non-oil and gas sectors. The availability of raw materials and the stability of the price of goods are key to increasing the value of exports so that they can compete with other countries. Expanding market share can also be done by conducting trade agreements between one or more than one country, developing technology and internet-based businesses.

Foreign exchange reserves are an important indicator of a country's ability to conduct international trade. This is in addition to the fact that one of the main sources of a country's currency comes from exports. Through exports, a country can earn revenue by selling goods and services to other countries. This foreign exchange earning is essential to finance the import of goods and services, repay foreign debt and fulfil other international payment needs.

It reflects the strength of the country's economic sector and its ability to compete with other countries (Silaban et al., 2022). Foreign investment is considered the main driver of economic growth. Foreign investment is the flow of capital originating from abroad that flows into the private sector either through direct investment or indirect investment (portfolio investment). Capital is an asset in the form of money or other forms that are not money owned by investors that have economic value (P. K. Dewi & Dewi, 2019). According to Afifah et al., (2019), the higher the value of investment in a country, the higher the level of productivity and the results affect economic growth significantly in developing countries. Research by C. N. P. Sari et al. (2019) proves that investment has a significant positive effect. The increase in investment that occurs can increase production capacity and create new jobs so that it will affect economic growth. Contrary to research by Nadzir & Kenda (2023) which shows the results of foreign investment insignificance effect on economic growth. This is seen based on the results of his research which show that there was a decrease in foreign investment, but the economy continued to grow positively. Similar results were also found in the research of Alice et al. (2021) that FDI insignificance effect on economic growth. This is due to foreign investment entering the non-productive sector, namely the monetary or banking sector which tends to be speculative (Alvaro, 2021).

The economic growth of the 6 ASEAN countries has fluctuated and it can be seen as shown in table 1 that in 2020 the economic growth of the six ASEAN countries experienced a significant decline due to the covid-19 pandemic which hampered all business operations so that companies had to reduce production capacity to survive in the meantime (Wau et al., 2022).

Table 1. GDP Growth of 6 ASEAN Countries in 2011-2022 (%)

	Indonesia	Singapore	Malaysia	Thailand	Philippines	Vietnam	Cambodia
2011	6,17%	6,21%	5,29%	0,84%	3,86%	6,41%	7,07%
2012	6,03%	4,44%	5,47%	7,24%	6,90%	5,51%	7,31%
2013	5,56%	4,82%	4,69%	2,69%	6,75%	5,55%	7,36%
2014	5,01%	3,94%	6,01%	0,98%	6,35%	6,42%	7,14%
2015	4,88%	2,98%	5,09%	3,13%	6,35%	6,99%	6,97%
2016	5,03%	3,60%	4,45%	3,44%	7,15%	6,69%	6,93%
2017	5,07%	4,54%	5,81%	4,18%	6,93%	6,94%	6,70%
2018	5,17%	3,58%	4,84%	4,22%	6,34%	7,47%	7,47%
2019	5,02%	1,33%	4,41%	2,11%	6,12%	7,36%	7,05%
2020	-2,07%	-3,90%	-5,53%	-6,07%	-9,52%	2,87%	-3,10%
2021	3,70%	8,88%	3,09%	1,49%	5,71%	2,56%	3,03%
2022	5,31%	3,65%	8,69%	2,60%	7,57%	8,02%	5,16%
AVG	4,57%	3,67%	4,36%	2,24%	5,04%	6,07%	5,76%

Source: macrotrends.net (2023)

Vietnam is known as the largest exporter of agricultural and fishery commodities in Southeast Asia. Not only that, Vietnam is also a country with the largest manufacturing companies that produce products from top brands in technology, garments and sportswear (BeritaSatu, 2021). Based on table 1, it can be seen that Vietnam has the highest average

gross domestic product growth in the last 11 years at 6.07% compared to other ASEAN countries, which is relatively low, making Vietnam an attractive destination for foreign investors. In 2020, it can be seen that the economic growth of 5 ASEAN countries is minus but Vietnam can still maintain GDP growth at 2.87%. The pandemic has had a tremendous impact on the world economy, especially in developing countries. It can be seen that the economic growth of the Philippines is severely affected where the growth is minus 9.52%. This has been predicted previously by the IMF, World Bank and World Economic Forum that during the Covid-19 pandemic a number of countries experienced a contraction in economic growth. This was triggered by the lockdown policy which caused international trade transactions to be hampered (Junaedi & Salistia, 2020). Allegedly the success of the Vietnamese government in controlling pandemic conditions is the key for Vietnam to maintain its economic stability starting from the Vietnamese government providing relief from tax burdens and other costs for affected businesses, reducing savings interest rates, signing free trade agreements with the European Union and other partnerships and implementing strict quarantine policies but not having a negative impact on the quality of life of its people so that they are still active as usual, making Vietnam's economic growth grow positively compared to other countries in Southeast Asia (Pratiwi & Hafiza, 2022). The end of the covid-19 pandemic provides opportunities for ASEAN countries including Indonesia, Singapore, Malaysia, Philippines, Thailand, and Vietnam which had experienced a decline and slowdown in economic growth so that to restore the economy can be through increasing economic activity and designing strategies to attract foreign investors to invest in the country which will have an impact on creating jobs and encouraging economic growth. Accelerating infrastructure development including transport, energy, public facilities and telecommunications can facilitate business operations and product distribution from one place to another. Quality infrastructure owned by a country becomes a global competitiveness and is one of the important factors in foreign investors' decision making to enter the country considering that infrastructure allows multinational companies to access the domestic market and supports business needs to conduct international trade transactions, namely export and import (Panjaitan et al., 2019).

The development of adequate infrastructure is needed to support the country's efficiency in conducting international trade considering that the country has limited ability to produce certain commodities, thus encouraging the country to trade with neighbouring countries to meet domestic needs (Nurdani & Puspitasari, 2023). Planned development encourages capital inflows through foreign investment. International trade also provides many other economic benefits, such as increasing production efficiency, increasing economic growth, improving people's welfare, improving living standards, strengthening economic and political relations between countries and earning foreign exchange income through export activities (Irmawati & Indrawati, 2022).

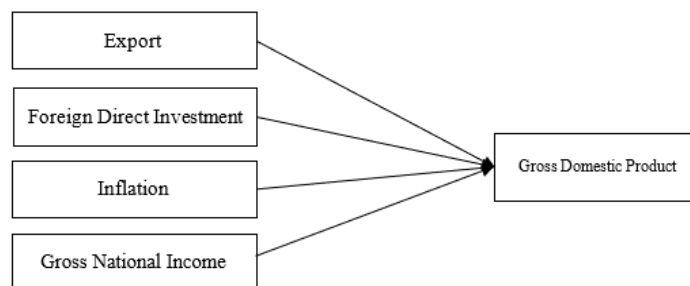
The global economic crisis has had a different impact on each country. As can be seen in Table 1, there are inequalities in economic development among the six ASEAN countries. The economic growth of Thailand seems to be unstable compared to other countries from one period to another for 11 years. So the purpose of this study is to see how GDP can react to economic growth and is supported by export variables to see how much influence from international trade cooperation agreements with fellow ASEAN members, the inflation rate to see the effect of the high cost of production and the price of consumer goods in each

country, FDI to see if there is a link between foreign investment and economic development as seen from how much progress from adequate infrastructure development and gross national income to see whether the higher the level of people's income will affect the lifestyle of people who become consumptive so that demand and supply increase affecting economic growth seen from the value of GDP.

This research tends to highlight aspects such as investment, exports and other factors that have a strong relevance to the economic growth of ASEAN countries with the latest data from 2011 to 2022. In addition, this study also limits the scope of the discussion, which only focuses on 6 ASEAN countries with rapid economic progress and have a major role in global trade so that this research is conducted with the aim of examining how much influence independent variables such as exports, foreign direct investment, inflation, and gross national income have on gross domestic product growth using data from 6 ASEAN countries. Therefore, this research is titled “*Factors Influencing Growth of Gross Domestic Product In 6 ASEAN Countries*”.

METHODS

This study uses panel data regression analysis to test hypotheses related to the effect of exports, FDI, inflation, and gross national income on economic growth as measured by gross domestic product growth. The object of this research is 6 ASEAN countries including Indonesia, Singapore, Malaysia, Thailand, Vietnam, Philippines. The data used is time series data. The data source is secondary data obtained indirectly, namely statistical data from the website of the Central Bureau of Statistics, Ministry of Trade, Bank Indonesia, Macrotrends and Macromicro with the period 2011-2022.



Source: Author (2023)

Picture 1. Research Model

RESULT AND DISCUSSION

Descriptive Statistics

Table 2. Descriptive Statistics

	Y	X1	X2	X3	X4
Mean	4.325139	6.161989	14.04819	2.970972	5.515256
Median	5.025000	6.176694	5.180000	2.732000	5.323508
Maximum	8.880000	38.39000	421.3800	18.67770	22.58264
Minimum	-9.520000	-20.40310	-395.9600	-1.138700	-11.44640
Std. Dev.	3.273512	11.44222	100.4629	2.794290	5.132763

Source: Data Processing Results (2023)

Table 2 shows the descriptive analysis as follows:

1. Gross Domestic Product (Y) has a maximum value of 8.88 found in Singapore in 2021, a minimum value of -9.52 found in the Philippines in 2020, with an average of 4.33 and a standard deviation of 3.27.
2. Export (X1) has a maximum value of 38.39 which is found in Indonesia in 2021, a minimum value of -20.40 which is found in Thailand in 2020, with an average of 6.16 and a standard deviation of 11.44.
3. Foreign Direct Investment (X2) has a maximum value of 421.38 found in Thailand in 2012, a minimum value of -395.96 found in Thailand in 2021, with an average of 14.05 and a standard deviation of 100.46.
4. Inflation (X3) has a maximum value of 18.68 found in Vietnam in 2011, a minimum value of -1.14 found in Malaysia in 2020, with an average of 2.97 and a standard deviation of 2.79.
5. Gross National Income (X4) has a maximum value of 22.58 found in Vietnam in 2012, a minimum value of -11.45 found in the Philippines in 2020, with an average of 5.52 and a standard deviation of 5.13.

Classical Assumption Test

- Multicollinearity Test

Table 3. Multicollinearity Test Results

Variable	Coefficient Variance	Centered VIF
C	0.176126	NA
X1	0.000787	1.407915
X2	7.59E-06	1.047136
X3	0.015543	1.657842
X4	0.005232	1.883097

Source: Data Processing Results (2023)

Multicollinearity symptoms can be seen from the correlation value between variables contained in the correlation matrix. The results of the multicollinearity test with the

correlation matrix are listed in table 3 which can be seen that the VIF value of each variable is below 10 so that it can be ascertained that there is no multicollinearity.

- **Heteroscedasticity Test**

Table 4. Heteroscedasticity Test Results

F-statistic	2.054558	Prob. F(4,67)	0.0966
Obs*R-squared	7.866614	Prob. Chi-Square(4)	0.0966
Scaled explained SS	6.815324	Prob. Chi-Square(4)	0.1460

Source: Data Processing Results (2023)

The heteroscedasticity test is useful for knowing whether there is an inequality of variance from the residuals of one observation to another in the regression model. Based on Table 4 the results of the Heteroscedasticity Test with Breusch-Pagan-Godfrey can be seen that the prob value. Breusch-Pagan-Godfrey $0.0966 > 0.05$, it can be concluded that the regression model does not occur heteroscedasticity.

Chow Test

Table 5. Chow Test Results

Redundant Fixed Effects Tests
 Equation: FEM
 Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.334211	(5,61)	0.0100
Cross-section Chi-square	17.395834	5	0.0038

Source: Data Processing Results (2023)

Based on the chow test results above, the cross-section chi-square probability value is 0.0047. Where this value shows that the prob value of $0.0047 < 0.05$. So that the Fixed Effect Model (FEM) is the estimation model used in this study and proceeds to the Hausman Test.

Hausman Test

Table 6. Hausman Test Results

Correlated Random Effects - Hausman Test
 Equation: REM
 Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	16.671056	5	0.0052

Source: Data Processing Results (2023)

In Table 6 the cross-section random probability value is 0.0033. Where this value shows a prob value of 0.0033 <0.05. So that the Fixed Effect Model (FEM) is the estimation model used in this study. Based on the results of the Chow Test and Hausman Test, the better model used in this study is the Fixed Effect Model.

Hypothesis Test

- **Coefficient of Determination**

Table 7. Determinant Coefficient

Root MSE	1.956045	R-squared	0.637920
Mean dependent var	4.325139	Adjusted R-squared	0.585360
S.D. dependent var	3.273512	S.E. of regression	2.107897
Akaike info criterion	4.457504	Sum squared resid	275.4802
Schwarz criterion	4.773708	Log likelihood	-150.4702
Hannan-Quinn criter.	4.583386	F-statistic	12.13700
Durbin-Watson stat	1.470063	Prob(F-statistic)	0.000000

Source: Data Processing Results (2023)

Based on table 7, it is known that the coefficient of determination (R-squared) is 0.6379, it can be concluded that the variables of Export, FDI, Inflation, Gross National Income simultaneously affect GDP growth by 63.79% and the remaining 36.21% is influenced by other factors.

- **F Test**

Based on table 7, it is known that the prob value (F-statistic) of 0.000000 <0.05, it is concluded that Exports, FDI, Inflation, Gross National Income simultaneously have a significant effect on the GDP Growth.

- **Panel Data Multiple Linear Regression Equation and Significance Test (t Test)**

Table 8. Testing Panel Data Multiple Regression Equations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.190136	0.418103	5.238263	0.0000
X1	0.053599	0.026182	2.047184	0.0449
X2	0.003440	0.002602	1.322074	0.1910
X3	-0.345533	0.126418	-2.733259	0.0082
X4	0.504612	0.072097	6.999113	0.0000

Source: Data Processing Results (2023)

$$Y = 2.190136 + 0.053599X1 + 0.003440X2 - 0.345533X3 + 0.504612X4 + e$$

Based on the equation above, it can be explained as follows:

1. Based on the test results according to table 8, it states that exports have a significant positive effect on GDP growth, with a coefficient value of 0.0536 and a prob. value

of $0.0449 < 0.05$. The results of this study are similar to the findings of the research of Nur et al. (2023) which states that the export variable has a significant positive effect on economic growth. But contrary to the research of Ngaisah & Indrawati (2022) where the results show that exports have a negative and insignificant effect in the long run. Based on the research results of Muhammad Adnan et al. (2022) using the VECM test method, the export variable has a significant positive effect in the long term and an insignificant negative effect in the short term.

2. Based on the test results, it is found that Foreign Direct Investment has a positive and insignificant effect on GDP growth, with a coefficient value of 0.0034 and a prob. value of $0.1910 > 0.05$. These results are similar to the research of Wijayanti (2022) which states that the FDI variable has a positive but insignificant effect. According to Asrinda & Setiawati (2022) with similar results, this is in accordance with Harrod Domar's theory, namely the ease of investing opens up opportunities for the emergence of new economic activities with renewable technology and of course investor security in investing is maintained. A large increase in FDI does not necessarily have a large impact on GDP because there is a possibility that incoming FDI only affects some sectors that do not have a large influence on GDP. Another possibility is that large incoming investments are for short-term and unsustainable projects. Contrary to research by Juwita et al. (2021) which found that the FDI variable has a negative and significant effect on economic growth.
3. Based on the test results, it is found that inflation has a significant negative effect on GDP growth, with a coefficient value of 0.3455 and a prob. value of $0.0082 < 0.05$. These results are similar to research of Simanungkalit (2020) which shows that the inflation variable has a significant negative effect on economic growth. This is in accordance with Keynes' theory which states that in the long run, high inflation will cause a decline in economic growth, this is supported by the fact that inflation can reduce the level of public welfare and disrupt economic stability where the costs and prices of goods and services continue to increase causing people's purchasing power to decline, especially low-income people (Silitonga, 2021).
4. Based on the test results, it is found that Gross National Income has a significant positive effect on GDP growth, with a coefficient value of 0.5046 significant and a prob. value of $0.0000 < 0.05$. According to Widiya et al. (2019) and Zakiah & Usman (2019), national income growth is in line with economic growth where when national income increases, people's welfare increases, making people consumptive and people's purchasing power also increases so that demand and supply occur.

CONCLUSION

Conclusions

Based on the results of the discussion above, it can be concluded that Exports and Gross National Income have a positive and significant effect on GDP Growth, Foreign Direct Investment has a positive but insignificant effect and Inflation has a negative significant effect on GDP Growth of 6 ASEAN Countries.

For the Government, it is expected that there will be changes in economic policies that are more effective by considering several macro variables that have a major influence on

economic growth such as accelerating infrastructure development projects to facilitate trade and other economic activities and establishing cooperation with other developing countries, both at the regional and global levels, to take advantage of trade and investment opportunities that can strengthen economic growth and periodically re-evaluate the policies implemented based on economic developments and the latest research findings.

REFERENCE

- Afifah, I., Djoemadi, F. R., & Ariani, M. (2019). Pengaruh Keterbukaan Perdagangan, Investasi, Inflasi dan Angkatan Kerja terhadap Pertumbuhan Ekonomi pada Delapan Negara ASEAN periode 2008-2015. *Calyptra: Jurnal Ilmiah Mahasiswa Universitas Surabaya*, 7(2), 4071–4081.
- Agustina, S., Astuti, A., Kusumawati, A. C., Rohma, S. M., Aini, N., Oktaviani, D., Salim, M. I. N., Baiti, F. N., Wibowo, R., Nabila, A., & Tambunan, N. (2023). Pengaruh Ekspor terhadap Pertumbuhan Ekonomi di Indonesia. *Jumek : Jurnal Manajemen Dan Ekonomi Kreatif*, 1(1), 113–126. <https://doi.org/10.29244/jekp.5.2.2016.10-31>
- Alice, Ekklesia, Sepriani, L., & Hulu, Y. J. (2021). Pengaruh Investasi Penanaman Modal terhadap Pertumbuhan Ekonomi Melalui Peningkatan Produk Domestik Bruto di Indonesia. *Wacana Ekonomi : Jurnal Ekonomi, Bisnis Dan Akuntansi*, 20(2), 77–83.
- Alvaro, R. (2021). Pengaruh Investasi, Tenaga Kerja, serta Ekspor terhadap Pertumbuhan Ekonomi. *Jurnal Budget*, 6(1), 114–131.
- Andinata, C. P., Adenan, M., & Jumiati, A. (2018). Analisis Pendapatan Nasional di Negara-negara Anggota ASEAN. *Jurnal Ekonomi Ekuilibrium (JEK)*, 2(1), 31–44.
- Ani, K. J., & Onu, C. (2022). Effect of Foreign Direct Investment on Gross National Income in Nigeria 2006-2017. *Independent Journal of Management & Production*, 13(1), 56–071. <https://doi.org/10.14807/ijmp.v13i1.1484>
- Asrinda, D., & Setiawati, R. I. S. (2022). Pengaruh Investasi Asing, Ekspor Neto dan Tenaga Kerja terhadap Pertumbuhan Ekonomi Indonesia. *Equilibrium : Jurnal Ilmiah Ekonomi, Manajemen Dan Akuntansi*, 11(2), 50–58. <https://doi.org/10.35906/equili.v11i2.1114>
- Batubara, B. A., & Batubara, M. (2023). Pendapatan Nasional Perspektif Islam dan Konvensional. *Jurnal Penelitian Ekonomi Akuntansi (JENSI)*, 7(1), 25–33. <https://doi.org/10.33059/jensi.v7i1.7661>
- BeritaSatu. (2021). *Vietnam: Kekuatan Ekonomi Digital Baru di Asia Tenggara*. Beritasatu.Com.
- Candy, & Winardy, A. (2019). Pengaruh Faktor Ekonomi Makro terhadap Stock Return pada Indeks Saham LQ45. *JESYA : Jurnal Ekonomi & Ekonomi Syariah*, 2(1), 65–79.
- Destian, E., & Laut, L. T. (2022). Faktor-Faktor yang Mempengaruhi Pertumbuhan Ekonomi di Indonesia Tahun 1990-2019. *Jurnal Kajian Ekonomi Dan Kebijakan Publik*, 7(1), 1–10.
- Dewi, E. R. (2022). Pengaruh Ekspor, Impor dan PDB terhadap Kurs di Indonesia Menggunakan Metode ARDL (The Effect of Exports, Imports and GDP on The Exchange in Indonesia Using The ARDL Method). *SENTRI: Jurnal Riset Ilmiah*, 1(4), 884–897.
- Dewi, P. K., & Dewi, M. H. U. (2019). Pengaruh Penanaman Modal Asing, Cadangan Devisa, dan APBN terhadap Utang Luar Negeri Indonesia melalui Impor tahun 1996-

2015. *E-Jurnal EP Unud*, 15(1), 121–151. <https://ojs.unud.ac.id/index.php/piramida/article/view/55763>
- Dewi, Z., & Husein, R. (2022). Analisis Indeks Harga Konsumen (IHK), Inflasi, dan Jumlah Penduduk terhadap Kemiskinan di Aceh Barat. *Jurnal Ekonomi Regional Unimal*, 30(03), 21–27.
- Erdkhadifa, R. (2022). Faktor-Faktor yang Mempengaruhi Pertumbuhan Ekonomi di Jawa Timur dengan Pendekatan Spatial Regression. *IQTISHADUNA: Jurnal Ilmiah Ekonomi Kita*, 11(2), 122–140. <https://doi.org/10.46367/iqtishaduna.v11i2.729>
- Hamzah, S., Prestianawati, S. A., & Kusmawan, I. M. H. (2023). Dampak Kebijakan Makroekonomi terhadap Perekonomian Indonesia. *Jurnal Ekonomika Dan Dinamika Sosial*, 2(1), 41–55. <https://journal.unhas.ac.id/index.php/jeds/article/download/25080/9516/84222>
- Hesniati, Henliyanto, Hartoko, R., Kordinata, E., Alicia, A., & Febriyanti, D. (2022). Analisis Pengaruh Impor, Ekspor dan Inflasi terhadap Cadangan Devisa di Indonesia. *Makro, Jurnal Manajemen & Kewirausahaan*, 7(1), 54–69.
- Hodijah, S., & Angelina, G. P. (2021). Analisis Pengaruh Ekspor dan Impor terhadap Pertumbuhan Ekonomi di Indonesia. *Jurnal Manajemen Terapan Dan Keuangan*, 10(1), 53–62. <https://doi.org/10.55047/transekonomika.v2i6.275>
- Humaira, T. R., & Agustiar, M. (2022). Pengaruh Foreign Direct Investment dan Utang Luar Negeri terhadap Pertumbuhan Ekonomi Negara Anggota OKI. *JMI : Jurnal Muamalat Indonesia*, 2(2), 150–163. <https://doi.org/10.26418/jmi.v2i2.55794>
- Irmawati, N. S., & Indrawati, L. R. (2022). Analisis Faktor-Faktor yang Mempengaruhi Ekspor Kopi Indonesia. *Jurnal Ilmiah Ekonomi Pembangunan*, 1(2), 43–56.
- Junaedi, D., & Salistia, F. (2020). Dampak Pandemi COVID-19 Terhadap Pertumbuhan Ekonomi Negara-Negara Terdampak. In *Simposium Nasional Keuangan Negara* (pp. 995–1115).
- Juwita, Fasa, M. I., & Suharto. (2021). Pengaruh Foreign Direct Investment dan Inflasi terhadap Pertumbuhan Perekonomian Indonesia. *Journal Of Management, Accounting, Economic and Business*, 02(02), 14–24.
- Karlina, B. (2017). Pengaruh Tingkat Inflasi, Indeks Harga Konsumen terhadap PDB di Indonesia pada Tahun 2011-2015. *Jurnal Ekonomika Dan Manajemen*, 6(1), 16–27.
- Kartika, Y. D., & Pasaribu, J. P. K. (2023). Pengaruh Inflasi terhadap Pertumbuhan Ekonomi di Indonesia Periode 2013-2021. *JUMANAGE : Jurnal Ilmiah Manajemen Dan Kewirausahaan*, 2(1), 131–137. <https://doi.org/10.35508/jom.v13i3.3311>
- Khairunisa, N. A., Sabaria, & Munzir. (2022). Analisis Pertumbuhan Ekonomi Negara-Negara ASEAN. *FAIR : Financial & Accounting Indonesian Research*, 2(2), 97–113.
- Komariyah, S., Putriya, H., & Sutantio, R. A. (2019). Dampak Investasi, Kinerja Ekspor, dan Inflasi dalam Penyerapan Tenaga Kerja Indonesia: Analisis Data Panel. *Ekuitas : Jurnal Ekonomi Dan Keuangan*, 3(4), 464–483. <https://doi.org/10.24034/j25485024.y2019.v3.i4.4195>
- Kurniawan, R. (2022). Hubungan Inflasi Indeks Harga Konsumen, Tingkat Suku Bunga, Produk Domestik Bruto, serta Nilai Tukar di Indonesia. *Populer: Jurnal Penelitian Mahasiswa*, 1(4), 49–61. <https://doi.org/10.58192/populer.v1i4.253>
- Kustiawati, D., Anisa, Utami, E. A., & Khoirunnisa, N. (2023). Analisis Pendapatan Nasional : Kota Jakarta. *ETNIK: Jurnal Ekonomi Dan Teknik*, 2(1), 54–59.

- <https://doi.org/10.54543/etnik.v2i1.141>
- Maftukha, M., & Aminda, R. S. (2021). Analisis Pengaruh Cadangan Devisa dan Neraca Perdagangan terhadap Nilai Tukar Rupiah atas Dolar Amerika Serikat. *Proceeding Seminar Nasional & Call For Papers*, 522–527.
- Meilaniwati, H., & Tannia. (2021). Analisis Pengaruh Penanaman Modal Asing (PMA), Penanaman Modal Dalam Negeri (PMDN), Trade Openness (TO) dan Inflasi terhadap Pertumbuhan Ekonomi di ASEAN-5 Tahun 2009-2018. *Business Management Journal*, 17(1), 89–100. <https://doi.org/10.30813/bmj>
- Muhammad Adnan, Yulindawati, & Mifda Fernandi. (2022). Pengaruh Ekspor dan Impor terhadap Pertumbuhan Ekonomi di Provinsi Aceh. *Jurnal Ilmiah Basis Ekonomi Dan Bisnis*, 1(2), 1–17. <https://doi.org/10.22373/jibes.v1i2.1771>
- Nadzir, M., & Kenda, A. S. (2023). Investasi Asing dan Investasi Dalam Negeri: Pengaruhnya pada Pertumbuhan Ekonomi di Indonesia. *JIMAT: Jurnal Ilmiah Mahasiswa Akuntansi*, 14(10), 317–328.
- Ngaisah, H., & Indrawati, L. R. (2022). Pengaruh Ekspor, Impor, dan Subsidi terhadap Pertumbuhan Ekonomi di Indonesia. *Jurnal Cakrawala Ilmiah*, 1(12), 3527–3544.
- Ngatikoh, S., & Faqih, A. (2020). Kebijakan Ekspor Impor: Strategi Meningkatkan Pertumbuhan Ekonomi di Indonesia. *LABATILA: Jurnal Ilmu Ekonomi Islam*, 04(02), 167–190. <http://ejournal.iainu-kebumen.ac.id/index.php/lab/article/view/269>
- Novariani, C., Muchtolifah, & Sishadiyati. (2021). Analisis Daya Saing dan Faktor yang Mempengaruhi Volume Ekspor Biji Kopi Indonesia Ke Jepang. *Eksis: Jurnal Ilmiah Ekonomi Dan Bisnis*, 12(1), 16–22. <https://doi.org/10.33087/eksis.v12i1.226>
- Nur, M., Agustin, H., & Nur, N. M. (2023). The Effect of Exports and Imports on Economic Growth in Indonesia. *Marginal: Journal of Management, Accounting, General Finance and International Economic Issues*, 4(2), 1362–1372. <https://doi.org/10.55047/marginal.v1i3.213>
- Nurdani, A. S., & Puspitasari, D. M. (2023). Pengaruh Ekspor Impor terhadap Pertumbuhan Ekonomi pada Tahun 2009-2019 di Indonesia. *Fair Value: Jurnal Ilmiah Akuntansi Dan Keuangan*, 5(8), 3450–3455. <https://journal.ikopin.ac.id/index.php/fairvalue>
- Odoemelum, N., Ofoegbu, G., & Regina, O. G. (2020). Effect of Accounting Earnings on Gross National Income: Evidence from Nigeria. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3613718>
- Panjaitan, H. A. M., Mulatsih, S., & Rindayati, W. (2019). Analisis Dampak Pembangunan Infrastruktur terhadap Pertumbuhan Ekonomi Inklusif Provinsi Sumatera Utara. *Jurnal Ekonomi Dan Kebijakan Pembangunan*, 8(1), 43–61. <https://doi.org/10.30640/jmcbus.v1i1.483>
- Pebrianto, M. (2018). Analisis Pengaruh Produk Domestik Bruto Perkapita, Nilai Tukar, Inflasi dan Cadangan Devisa terhadap Nilai Impor Barang Indonesia Dari Jepang, Singapura Dan Tiongkok Tahun 1987- 2016. *Jurnal Ilmiah Mahasiswa FEB*, 7(1). <https://jimfeb.ub.ac.id/index.php/jimfeb/article/view/5287/4651>
- Pratiwi, D. E., & Hafiza, R. N. (2022). Dampak Keberhasilan Pemerintah Vietnam dalam Menekan Kasus Covid-19 pada Kestabilan dan Kesehatan Negara. *Proyeksi: Jurnal Ilmu Sosial Dan Humaniora*, 27(1), 1–18. <https://doi.org/10.26418/proyeksi.v27i1.2894>
- Purwanto, H., & Siswahadi. (2021). Paradigm of National Income in Islamic Economy.

- Syariati : Jurnal Studi Al-Qur'an Dan Hukum*, 7(1), 94–101.
- Putra, R. C. Y., & Soebagiyo, D. (2023). Analisis Pengaruh Inflasi, Nilai Tukar Mata Uang, dan PDB terhadap Pertumbuhan Ekonomi di 5 Negara ASEAN tahun 2007-2022. *Jurnal Bisnis Dan Manajemen*, 03(04), 561–565.
- Rinaldi, M., Jamal, A., & Seftarita, C. (2017). Analisis Pengaruh Perdagangan Internasional dan Variabel Makro Ekonomi terhadap Pertumbuhan Ekonomi Indonesia. *Jurnal Ekonomi Dan Kebijakan Publik Indonesia*2, 4(1), 49–62. <https://doi.org/10.21098/bemp.v10i3.226>
- Ronaldo, R. (2019). Pengaruh Inflasi dan Tingkat Pengangguran terhadap Pertumbuhan Ekonomi Makro di Indonesia. *Jurnal Ekonomi*, 21(2), 137–153. <https://doi.org/10.32505/jii.v5i2.2392>
- Sari, C. N. P., Jumiati, A., & Muslihatinningsih, F. (2019). Analisis Pengaruh Inflasi dan Investasi terhadap Pertumbuhan Ekonomi dan Kesejahteraan Masyarakat di Pulau Jawa Tahun 2006-2016. *Jurnal Ekonomi Ekuilibrium (JEK)*, 3(1), 45–60.
- Sari, L. P., Auliyani, M., & Jannah, N. (2021). Pengaruh Inflasi terhadap Pertumbuhan Ekonomi di Sumatera Utara. *Journal of Innovation Research and Knowledge*, 1(7), 411–418.
- Sella, V. P., & Ardini, L. (2022). Pengaruh Inflasi, Suku Bunga dan Nilai Tukar terhadap Harga Saham pada Perusahaan Bursa Efek Indonesia di Masa Pandemi Covid-19. *Jurnal Ilmu Dan Riset Akuntansi*, 11(8), 1–17.
- Silaban, P. S. M. J., Hutasoit, H. F. Y. P. B., Simangunsong, Y. S. B., & Sinaga, H. E. N. (2022). Analisis Pengaruh Ekspor dan Utang Luar Negeri terhadap Cadangan Devisa di Indonesia Periode 2000-2021. *Niagawan*, 11(3), 202–213. <https://doi.org/10.24114/niaga.v11i3.35877>
- Silitonga, D. (2021). Pengaruh Inflasi terhadap Produk Domestik Bruto (PDB) Indonesia pada Periode Tahun 2010-2020. *ESENSI: Jurnal Manajemen Bisnis*, 24(1), 2021.
- Simanungkalit, E. F. B. (2020). Pengaruh Inflasi terhadap Pertumbuhan Ekonomi di Indonesia. *Journal Of Management (SME's)*, 13(3), 327–340.
- Supiyadi, D., & Anggita, L. P. (2020). Peran Ekspor dan Impor terhadap Pertumbuhan Ekonomi di Indonesia (2007-2017). *Jurnal Indonesia Membangun*, 19(2), 1–11.
- Suprpto, Y., Ong, T., Fernando, N., & Kangnanda, V. (2023). Pengaruh Ekspor dan Impor Indonesia terhadap Bisnis Internasional. *Jurnal Manajemen Kreatif Dan Inovasi*, 1(3), 63–70.
- Titus, O. M., Wagala, A., & Muriithi, D. K. (2022). Foreign Exchange Rate Volatility and Its Effect on International Trade in Kenya. *European Journal of Humanities and Social Sciences*, 2(4), 47–56. <https://doi.org/10.24018/ejsocial.2022.2.4.182>
- Wau, T., Sarah, U. M., Pritanti, D., Ramadhani, Y., & Ikhsan, M. S. (2022). Determinan Pertumbuhan Ekonomi Negara ASEAN: Model Data Panel. *Jurnal Samudra Ekonomi Dan Bisnis*, 13(2), 163–176. <https://doi.org/10.33059/jseb.v13i2.5205>
- Widiya, H., Siregar, E. P., & Hilmiatussahla, H. (2019). Pengaruh Pendapatan Nasional, Kurs, Inflasi dan Suku Bunga terhadap Impor Barang Modal. *Jurnal Manajemen, Ekonomi Sains*, 1(1), 1–22. <http://jurnal.una.ac.id/index.php/mes/article/view/714>
- Wijayanti, D. (2022). Pengaruh Foreign Direct Investment, Pajak dan Human Capital terhadap Pertumbuhan Ekonomi di Indonesia. *Jurnal Akuntansi Dan Keuangan (JAK)*, 27(2), 93–101. <https://doi.org/10.23960/jak.v27i2.366>

- Yogatama, S. A., & Hidayah, N. (2022). Determinan Pertumbuhan Ekonomi di Kawasan ASEAN. *Jurnal Pendidikan Ekonomi : Jurnal Ilmiah Ilmu Pendidikan, Ilmu Ekonomi, Dan Ilmu Sosial*, 16(2), 236–242. <https://doi.org/10.19184/jpe.v16i2.33841>
- Yollanda, M., & Hasanah, F. R. U. (2023). Analisis Pengaruh Variabel Moneter terhadap Perkembangan Ekonomi Negara ASEAN. *Journal of Science and Technology (JOSTECH)*, 3(1), 1–12.
- Zakiah, & Usman, U. (2019). Hubungan Jumlah Uang Beredar, Inflasi dan Nilai Tukar terhadap Pendapatan Nasional di Indonesia Menggunakan Model Dinamis. *Jurnal Ekonomi Regional Unimal*, 02(02), 98–108. <https://doi.org/10.29103/jeru.v2i2.1698>