Determinant of Economic Growth in ASEAN Countries (Indonesia, Thailand, Malaysia, Singapura, Philipines) 2010-2019

Fitri Rahmadani and Lilies Setiartiti

Abstract: This research aims to analyze the effect of Foreign Direct Investment, Labor Force, External Debt, and Economic Freedom, on the Economic growth of Selected ASEAN Countries. The data used in this study is annual data for the period 2010-2019 sourced from The World Bank, Ceic Data, and Heritage.org. The analytical method used in this research is panel data analysis supported by Eviews 11.0. The results is show that foreign investment has a positive and insignificant effect on economic growth the workforce has a significant and positive effect on economic growth, foreign debt has a positive and dignified effect, and economic freedom has a significant and positive effect on economic growth.

Keywords: Foreign Direct Investment; Labor Force; Foreign Debt; Economic Freedom; Economic Growth; ASEAN

JEL Classification: F43; O41; J21

Introduction

Economic growth is a process of changing economic conditions in a country on an ongoing basis towards a better state over a certain period. The economy in a country is said to be good if it experiences a change in the level of economic activity that is higher than that achieved in the previous period. One indicator that can be used to measure a country's economic growth is the GDP growth rate (Gross Domestic Product). GDP is the amount of added value generated by all production activities in the economy, this means that an increase in GDP also reflects an increase in remuneration for the production factors used in these production activities, in the context of the regional economy, the measure that is often used is Regional Domestic Product. Gross (GDP) is the total gross value added generated by all economic sectors in the region (Statistick Indonesia-BPS DI Yogyakarta, 2022).

One indicator that can be used to measure a country's economic growth is the GDP growth rate. GDP is the added value generated by all production activities in the economy, this means that an increase in GDP also reflects an increase in remuneration for the production factors used in these production activities. In the context of the regional economy, the measurement that is often used is the Gross Regional Domestic Product (GDP), which is the total gross value added (gross value added) generated
by all economic sectors in the region. Macroeconomic analysis compares the level of the economy to the growth of a nation’s real national output, sometimes referred to as GNP or GDP, which stands for Gross National Product (Mukupa et al., 2016).

The economic growth of a country does not always rise but will experience tidal fluctuations, among others experienced by Indonesia in 1997 and the global crisis, in 2008. The global economic crisis that occurred in 2008 started with the United States economic crisis that spread to other countries around the world, including ASEAN countries, which triggered a slowdown in world economic growth and led to an economic downturn. The impact of the global economic crisis has affected the current economic growth. Economic growth is the process of increasing output per capita in the long run. Of course, economic growth is related to an increase in output per capita; Therefore, two parts must be considered, namely the total output (Gross Domestic Product) and the total population. Output per capita is total output divided by population, so the process of increasing output per capita must be analyzed by taking into account total output on the one hand, and population on the other. A complete theory of economic growth must be able to describe what happens to the total gross domestic product and what happens to the population because if these two aspects are connected, it can also explain the development of output per capita. (Budiono, 2002).

A country’s economic growth does not always increase, but fluctuates due to various factors. For example, the global financial crisis that occurred in 2008 actually started in the United States economic crisis and has spread to other countries around the world, including ASEAN countries, which triggered a slowdown in world economic growth and led to an economic downturn. The slowdown in growth has caused trading volume to drop sharply and has had an impact on large industries that are threatened with bankruptcy. The impact of the global economic crisis has affected the current economic growth.

In recent years, ASEAN countries increasingly have an important role at the global level, this can be a driving force for ASEAN in the formation of the 2015 ASEAN Economic Community (AEC). The global economy, as well as strengthening the economies of ASEAN countries, which in the end the competition among ASEAN member countries can be more mutually beneficial. Countries in Southeast Asia often referred to as ASEAN has ten participating countries, namely Indonesia, Thailand, Malaysia, Vietnam, Singapore, Laos, Cambodia, Myanmar, the Philippines, and Brunei Darussalam. The Table 1 is a table of economic growth for ASEAN countries for the 2010-2019 period.
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Determinant of Economic Growth in ASEAN Countries

<table>
<thead>
<tr>
<th>Year</th>
<th>Indonesia</th>
<th>Thailand</th>
<th>Malaysia</th>
<th>Vietnam</th>
<th>Singapura</th>
<th>Laos</th>
<th>Kamboja</th>
<th>Myanmar</th>
<th>Filipina</th>
<th>Brunei</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>850.024</td>
<td>368.884</td>
<td>283.214</td>
<td>155.820</td>
<td>255.008</td>
<td>11.942</td>
<td>15.228</td>
<td>59.640</td>
<td>216.408</td>
<td>18.525</td>
</tr>
<tr>
<td>2013</td>
<td>897.262</td>
<td>378.797</td>
<td>296.507</td>
<td>171.222</td>
<td>279.272</td>
<td>13.268</td>
<td>16.703</td>
<td>60.292</td>
<td>231.334</td>
<td>17.098</td>
</tr>
<tr>
<td>2016</td>
<td>1,037.860</td>
<td>408.043</td>
<td>345.020</td>
<td>205.276</td>
<td>308.640</td>
<td>15.806</td>
<td>22.177</td>
<td>61.449</td>
<td>299.267</td>
<td>11.401</td>
</tr>
<tr>
<td>2017</td>
<td>1,090.480</td>
<td>424.635</td>
<td>365.075</td>
<td>223.780</td>
<td>322.025</td>
<td>16.853</td>
<td>22.177</td>
<td>67.145</td>
<td>320.009</td>
<td>12.128</td>
</tr>
<tr>
<td>2018</td>
<td>1,146.850</td>
<td>442.261</td>
<td>382.489</td>
<td>245.214</td>
<td>333.096</td>
<td>17.954</td>
<td>24.572</td>
<td>68.698</td>
<td>340.303</td>
<td>13.567</td>
</tr>
<tr>
<td>2019</td>
<td>1,204.480</td>
<td>452.675</td>
<td>398.394</td>
<td>261.921</td>
<td>355.359</td>
<td>18.246</td>
<td>27.089</td>
<td>79.844</td>
<td>360.859</td>
<td>13.469</td>
</tr>
</tbody>
</table>

Source: World Bank, 2020

Based on the data obtained from the World Bank, in 2010-2019 the country with the highest average was Indonesia at US$971,405 billion while the lowest average was in Laos at US$18,196 billion. It can be seen that the economic growth value of the countries of Indonesia, Thailand, Malaysia, Singapore, and the Philippines has increased every year and has the highest average in ASEAN. Economic growth can increase due to several factors that drive a country. In developed countries, relying on production results in the form of goods and services, and investment. The relationship between the inflation rate and the labor force on economic growth, according to (Tahir & Azid, 2015) a low inflation rate in a country indicates a more stable economic environment so that it has a positive impact on economic growth. However, if the inflation rate fluctuates (easy to change), it will make it more difficult or slow the increase in a country's economic growth. The higher the level of economic freedom in a country, the higher the prosperity of that country. In addition, in the current era of globalization and democracy, the existence of an index of economic freedom plays an important role in achieving the freedom that every country wants, (Tran & Dinh, 2014).

Several factors play an important role in a country's economic growth, including: investment, qualified workforce, foreign debt, and economic freedom. Investment is explicitly claimed to be the engine of economic growth because of its ability to create multiple effects on economic activity as a whole. Meanwhile, the economic freedom of a country is also considered as an important indicator for a country's economic growth. Economic freedom must be able to provide space for the state to empower people to be able to work, produce, trade, and invest according to personal choices. According to (Gwartney et al., 2004), the higher the level of economic freedom in a country, the higher the country's prosperity. In addition, in the current era of globalization and democracy, the existence of an index of economic freedom plays an important role in achieving the freedom that every country wants.

This study seeks to examine in depth the relationship between the influence of foreign direct investment, labor force, foreign debt, and economic freedom on economic growth. The author chose several countries, namely Indonesia, Malaysia, Singapore, Thailand, and the Philippines because these five countries have the highest average GDP among other...
Economic growth is the process of increasing output per capita in the long run. Of course, economic growth is related to an increase in output per capita; Therefore, two parts must be considered, namely the total output (Gross Domestic Product) and the total population. Output per capita is total output divided by population, so the process of increasing output per capita must be analyzed by taking into account the total output on the one hand, and the population on the other. A complete theory of economic growth must be able to describe what happens to the total gross domestic product and what happens to the population because if these two aspects are connected, it can also explain the development of output per capita (Budiono, 2002).

Several previous studies will be described briefly and clearly because the research carried out refers to previous research. Even though the scope is almost the same, the objects and time periods used are different, many things are not the same so that it can be used as a reference to complete. Boldeanu and Constantinescu (2015) claim that foreign investment has a positive and significant influence on economic growth in Indonesia, both in the short and long term. Foreign direct investment also has a significant effect on economic growth in ASEAN, (Melani & Sentosa, 2019).

Apart from foreign capital, the labor force is also a variable that has a significant effect on economic growth, (Agrawal & Khan, 2011) where a country's workforce greatly influences the level of the country's human resources. In contrast to the empirical results of research conducted by (Sari & Kaluge, 2018) stating that the workforce has a significant negative effect on economic growth in all ASEAN countries. Regarding the foreign debt variable, Alhazimi and Supriyono, (2020) stated that it is a variable that has a positive effect on economic growth in ASEAN countries. The research was conducted using panel data from 5 ASEAN countries (Indonesia, the Philippines, Laos, Myanmar and Vietnam). Foreign debt also shows a positive influence on economic growth in Indonesia, (Malik & Kurnia 2017). Researchers describe that Indonesia’s economic growth is influenced by foreign debt with a correlation rate of 61.3%. This means that Indonesia’s economic growth of 38.7% is influenced by other variables outside of this study. Mohd Dauda et al. (2013) also proved that foreign debt had a significant positive effect on economic growth in Malaysia. This is evidenced by a 1 percent increase in foreign debt associated with 0.78 percent economic growth. This shows that foreign debt in Malaysia is managed very productively to increase economic growth.

Research conducted by (Suparyati & Fadilah, 2015) found that overall in developed and developing countries economic freedom has a significant effect on economic growth. The researcher stated that the higher the value of the economic freedom index determined by the score on the economic freedom index, this indicates that the country is more-free. On the other hand, Wulandari (2014) emphasized that Economic Freedom in Indonesia is in the category of "mostly unfree", where problems in Indonesia mainly occur due to poor
law enforcement, high corruption, political influence in the justice system and property rights.

Research Method

This research used secondary data in the form of panel data and used quantitative analysis. The objects in this study are economic growth data using gross domestic product data, foreign direct investment data, labor force data, foreign debt data, data on economic freedom in selected ASEAN countries, namely Singapore, Malaysia, Thailand, Indonesia, and the Philippines. This data was taken in the same period, namely 2010-2019. Empirical studies in five countries, namely Singapore, Malaysia, Thailand, Indonesia, and the Philippines were chosen because the average value of the gross domestic product in these five countries has the highest average value in ASEAN, data from the World Bank immediately proves this. The panel data regression model in this study is as follows:

\[ Y = \alpha + b1.X1.i.t + b2.X2.i.t + b3.X3.i.t + e \]

Where:
- \( Y \) = Economy Growth in ASEAN Countries
- \( \alpha \) = Constanta
- \( e \) = Error Term
- \( X1 \) = Foreign Capital
- \( t \) = Time
- \( X2 \) = Labor Force
- \( i \) = Country
- \( X3 \) = Utang Luar Negeri
- \( X4 \) = Freedom of Economy

Concept of each variable:
1. Economic Growth
   Economic growth is the growth of output or an increase in regional income in aggregate within a certain period based on the production sector at constant prices. The economic growth data used in this study is Gross Domestic Product at constant prices for 2010-2019, this data is expressed in billions of US$ and is sourced from the World Bank.
2. Foreign Direct Investment
   Mankiw (2006) defines foreign direct investment as investment owned and managed by foreign (foreign) parties. The Foreign Direct Investment data used in this study is net inflows (%) of GDP) from 2010-2019 and this data is sourced from the World Bank.
3. Labor Force
   The labor force is the labor force or population of working age, or having a job but not working, and who are looking for work (Dumairy, 1996). The labor force data used in this study is the number of the workforce with data from 2010-2019, this data is expressed in total units and is sourced from the World Bank.
4. Foreign Debt
Foreign debt is a loan made by the government or the private sector to another party or a different country. External debt data used in this study is stock external debt data, the total data (DOD, current US$) used is 2010-2019 data, this data is expressed in billions of US$ and is sourced from CeicData.

5. Economic Freedom
Economic freedom is the absence of government restrictions in the production, consumption, and distribution of goods to protect the freedom itself, the smaller the role of the government, the more it shows the level of freedom. Data on economic freedom (Economic Freedom) used is data on economic freedom for the countries of Indonesia, Malaysia, Singapore, Thailand, Vietnam, and the Philippines, starting from 2008 – to 2015. This variable uses percent (%) and is sourced from heritage.org.

Result and Discussion

Based on the model specification test that has been carried out, the regression model used in this research is the fixed effect model.

Panel Data Estimation Model Results

Table 2 Estimation Results of Fixed Effect Model

<table>
<thead>
<tr>
<th>Variabel Bebas LOG (GDP)</th>
<th>Model Fixed Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Konstan (C)</td>
<td>-10.61506</td>
</tr>
<tr>
<td>Standard Error</td>
<td>2.712743</td>
</tr>
<tr>
<td>Probability</td>
<td>0.0004</td>
</tr>
<tr>
<td>LOG (FDI)</td>
<td>0.028405</td>
</tr>
<tr>
<td>Standard Error</td>
<td>0.017528</td>
</tr>
<tr>
<td>Probability</td>
<td>0.1130</td>
</tr>
<tr>
<td>LOG (LabForce)</td>
<td>0.875335</td>
</tr>
<tr>
<td>Standard Error</td>
<td>0.217735</td>
</tr>
<tr>
<td>Probability</td>
<td>0.0003</td>
</tr>
<tr>
<td>LOG (ForDebt)</td>
<td>0.233149</td>
</tr>
<tr>
<td>Standard Error</td>
<td>0.068171</td>
</tr>
<tr>
<td>Probability</td>
<td>0.0015</td>
</tr>
<tr>
<td>LOG (EF)</td>
<td>1.342797</td>
</tr>
<tr>
<td>Standard Error</td>
<td>0.261363</td>
</tr>
<tr>
<td>Probability</td>
<td>0.0000</td>
</tr>
<tr>
<td>(R^2)</td>
<td>0.992478</td>
</tr>
<tr>
<td>F-Statistik</td>
<td>659.6792</td>
</tr>
<tr>
<td>Prob (F-Stat)</td>
<td>0.000000</td>
</tr>
<tr>
<td>Durbin-Watson stat</td>
<td>0.695511</td>
</tr>
</tbody>
</table>

Based on the Table 2 the results presented it can be seen that each country produces a different constant value of the fixed-effect model, it can be concluded that each country has a different change in the level of economic growth if the variables of foreign direct investment, labor force, foreign debt, and freedom economy is excluded from the model.
Thailand, Indonesia, and the Philippines have a positive regional influence or cross-sectional economic growth value where each country has a coefficient value of 0.382997 for Thailand, 0.334059 for Indonesia, and the Philippines is 0.924278. Furthermore, the economic growth of Singapore and Malaysia has a negative regional or cross-sectional effect. That is -1.491513 for Singapore and -0.149820 for Malaysia.

The Effect of Foreign Direct Investment on Economic Growth

Based on the results of hypothesis testing for the Foreign Direct Investment (FDI) variable, it is known that the regression coefficient value is 0.028405, which means that if foreign investment increases by 1%, economic growth will increase by 0.028405%. The probability value of the Foreign Direct Investment (FDI) variable is 0.1130 > 0.05 which means it is not significant, thus (H1) is rejected. Because FDI is not significant in this study, it means that any increase in FDI does not affect economic growth.

This is different from the Harrod-Domar theory which says that capital formation and ICOR (the ratio of additional capital to additional output) are important variables. Based on this theory that investment affects economic growth. Capital in this theory is equal to the investment, which means that foreign direct investment currently has the effect of increasing aggregate demand and increasing production capacity.

The results of this study are in line with previous research conducted by (Sari & Kaluge, 2018) which examined the analysis of factors that affect the economic growth of ASEAN Member Countries where the results of the study stated that FDI was not significant for economic growth in ASEAN countries, which was strongly influenced by consumption levels. beyond investment and production. This culture of high consumerism by the people in Southeast Asia is then an indicator and evidence that the country is experiencing economic growth in the country concerned.

Research conducted by (Wahyudin & Yuliadi, 2013) shows that FDI has a positive effect on economic growth. Investment from abroad plays an active role in encouraging the economy of a region, both in the role of technological progress owned by foreign parties, as well as a strong network of international institutions and global markets.

The Effect of Labor Force on Economic Growth

The Labor Force variable has a regression coefficient of 0.875335 with a probability of 0.0003. By using the 5% level, the Labor Force has a positive and significant impact on economic growth in several ASEAN countries. This means that an increase in the Labor Force by 1% will increase economic growth in several ASEAN countries by 0.875335%.

Several studies have examined the contribution of the labor force to economic growth. (Stadler, 2003) in his research, he emphasizes that subsidies for education and qualifications of the workforce are an increase in qualifications rather than an increase in the quantity of the labor force that plays an important role in economic growth concerning Mexico, Asia, and several countries in South America. Moreover, (Paudel et
al., 2022) concludes that humans play a key role in economic growth and the more skilled labor there is in a country, the more prosperous it is. Because more and more skilled workers in a country will help increase the production of goods and services as well as economic growth in that country. (Tahir & Azid, 2015) in his research, he said that the higher the level of the labor force in a country, the economic growth of a country will also increase. This is presumably due to the high population level in ASEAN countries (Indonesia, Thailand, Malaysia, Singapore, the Philippines) where most of them are of productive age, so they can utilize this large population into a quality workforce.

According to (Todaro & Munandar, 2000), population growth and labor force growth are traditionally considered as the positive factors that spur economic growth. A greater number of workers means an increase in the level of production, while a greater population growth means a larger size of the domestic market. The importance of increasing the development of human resources (human capital) to encourage and increase productivity, is because productivity growth is a growth driver.

The relationship between economic growth and human development is a strong two-way relationship. On the one hand, economic growth provides the resources that enable sustainable development in human development. On the other hand, the development of quality human resources is an important contributor to economic growth.

The Effect of Foreign Debt on Economic Growth

The Foreign Debt variable has a regression coefficient of 0.233149 with a probability of 0.0015. By using the 5% level, Foreign Debt has a positive and significant effect on economic growth in several ASEAN countries. This means that an increase in Foreign Debt by 1% will increase economic growth in several ASEAN countries by 0.233149%. The results of this study are in line with the results of previous research conducted by (Herlambang, 2018), which states that foreign debt has a significant positive effect on economic growth. Foreign debt that has a positive effect because creditor countries see the economic conditions that occur in debtor countries, especially ASEAN with the economic potential with a population of 8.8% of the world’s population, is believed to make creditor countries see the promising prospect of investing in ASEAN to improve the economic structure in ASEAN.

The positive relationship of foreign debt to economic growth according to Keynesian understanding was studied by Eisner (1989) and Bernheim (1989). The Keynesian view sees that the policy of increasing the expenditure budget financed by foreign debt will have a significant effect on economic growth due to the increase in aggregate demand as a further effect of the occurrence of capital accumulation. Keynesian groups have the view that the government’s budget deficit covered by foreign debt will increase income and welfare so that an increase in income will increase consumption. This causes the current tax burden to be relatively light, which in turn will lead to an increase in disposable income. An increase in national income will encourage the economy.
Keynes said foreign loans are made because of a country's budget deficit. Therefore, to cover the budget deficit so that the development financing process in a country does not experience a shortage. In the macroeconomic model, Keynes also revealed that an important part to regulate the economy's aggregate demand is the government budget, if a country's economy is under full payment, it means that the government will increase aggregate demand by increasing government spending or can reduce taxes.

The Effect of Economic Freedom on Economic Growth

Based on the results of this study indicate that Economic Freedom has a regression coefficient of 1.342797 with a probability of 0.0000. By using the 5% level, the variable of economic freedom has a positive and significant effect on economic growth in several ASEAN countries. This means that a 1% increase in economic freedom will increase economic growth in several ASEAN countries by 1.342797%.

The theory of economic freedom, states that for the sake of healthier and more fertile economic growth, it is necessary to give greater flexibility to the market and reduce the active role or intervention of the government. However, this assumption is wrong, the effectiveness of a market requires certain institutional, cultural and legal support, which most or even developing countries do not have. In many developing countries, legal, cultural, and institutional instruments, even if they exist, are still very weak to support market mechanisms effectively and efficiently. Without an established legal system, for example, all contracts and business agreements will only be left on paper, copyright is just a word of mouth, and currency exchange rates can change at any time. With such minimal legal certainty, it is clear that business is not expected to develop well (Todaro, 1998).

As we know that ASEAN countries are developing countries, except for Singapore. The problem faced in developing countries is the lack of infrastructure and financial facilities. Without roads, telecommunications systems, electricity, or a strong banking system, it will be difficult for a market economy to grow satisfactorily. These limitations, and the difficulty of achieving the economies of scale necessary to conduct profitable business activities, make it difficult for supply and demand to meet and grow. Most of the assets are still declared public property so their commercial use is difficult. In a condition where there is often an inaccuracy of resources, goods, and finances caused by limited access to information. Therefore, it needs to be balanced with an increase in the role of the government (Todaro, 1998).

Thus, this research is by the previous research entitled The Impact of Economic Freedom on Economic Growth in Asian Countries, which was conducted by Suparyati and Fadilah (2015). found that overall in developed and developing countries economic freedom had a significant effect on economic growth. The researcher states that the higher the value of the economic freedom index which is determined by the score on the economic freedom index, this indicates that the more free the country is. According to Gwartney et al. (2004), the higher the welfare level of a country, the freer the economy in that country. The results of this study are also supported by (Panahi et al., 2014) stating that economic freedom has a positive and significant impact on economic growth. The size of the
government is positively correlated with economic growth because an increase in the size of the government positively affects the better allocation of resources. In research (Wulandari, 2015) said that economic freedom will encourage economic growth and the market economy system by innovating. Market freedom and protection of property rights will promote economic growth.

**Conclusion**

Based on the results of research and data analysis, the conclusions are as follows: (1) Foreign Direct Investment has a positive but not significant effect on economic growth in ASEAN countries. This means that whatever increase or decrease in Foreign Direct Investment does not affect economic growth in ASEAN countries. (2) The Work Force has a positive and significant impact on economic growth in ASEAN countries. A country that is able to manage its workforce resources into a productive workforce will accelerate economic growth, and vice versa. Thus, the higher the labor force, the more positive it is for economic growth. (3) Foreign Debt has a positive and significant effect on economic growth in ASEAN countries because foreign debt can cover a country's revenue budget surplus. (4) Economic freedom has a positive and significant effect on economic growth in ASEAN countries because an increase in the size of government positively affects a better allocation of resources, where resources are needed in the production of goods and services.

Based on the research that has been done, the authors submit several suggestions regarding the results of the research as material to be used as input and considerations for interested parties so that they can provide benefits. (1) The government may renew or improve policies in the monetary sector to improve the existing economic conditions to attract foreign investors and improve the investment climate. (2) There needs to be an increase in wages so that the workforce is more enthusiastic about working so that the production process becomes better and increases. (3) The government can manage funds originating from foreign debt in a targeted manner so that in the future it will not be too dependent on foreign debt because in the beginning it was very good for development but not for the long term. (4) The government can bridge and be able to provide scope for the community in economic freedom by applicable laws and regulations to reduce unwanted events, such as acts of plagiarism, copyright infringement that damage freedom itself.

**References**


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