

The Effect of Trade Openness, Foreign Direct Investment, Government Expenditure, Labor Force, and Inflation on Economic Growth in ASEAN Countries

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ABSTRACT

This study aimed to analyse the effect of Trade Openness, Government Expenditure, Foreign Direct Investment, Labour Force, and Inflation on Economic Growth in ASEAN Countries. This research used secondary data. Data was analysed by using Panel Data Regression Estimation method. The results showed that Trade Openness, Foreign Direct Investment, and Inflation had a positive and significant impact on Economic Growth. The Labour Force has no positive and significant impact on Economic Growth while government expenditure has a negative and significant impact on economic growth in ASEAN countries.

Keywords: trade openness, economic growth, government expenditure, labor force, foreign direct investment, inflation.

1. INTRODUCTION

Economic growth is one of the most necessary indicators that used for predicting performance of economic Global countries. Frequently Economic growth related to the economic and wealth of Nations and represent Economic development in which countries. Unfortunately, not all countries can reach good performance in economic related to economic growth. There are some factors related to the Economic growth and economic development. That is why International economic, and international cooperation become more important Blue Ridge Apartments in economics. Establishment of world trade organization in International Cooperation become more intensive Across the nation

Regional economic cooperation registered in the WTO and other organizations. On the other hand, there is also an Asian Regional Economy and of course it becomes a Regional One of the regional economic associations is the Association of Southeast Asian Nations or ASEAN which consists of ten countries throughout the region. At the age of 53 this year, the ASEAN Economic Community showed several opportunities to carry out International Economic

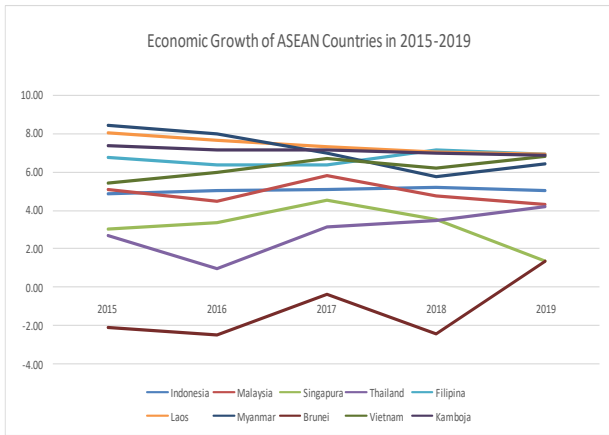
Cooperation among Asian countries. This study aimed to analyse the effect of economic macro aspects to economic growth and development in ASEAN countries.

ASEAN developed into ASEAN Economic Community (AEC) which was formed in 2015, the MEA was formed with the aim of maintaining political stability and security in the ASEAN region, increasing competitiveness in world markets, reducing poverty, promoting economic growth as well as improving people's living standards. Residents of ASEAN member countries. So it is hoped that the existence of economic integration will increase economic growth in the ASEAN region. The economic growth in several countries of ASEAN in last 5 years could be seen in graph below.

There had been economic growth development that causes goods and services produced in the community to increase so that people's prosperity increases. This is in line with the objectives of the establishment of ASEAN and AEC[1].

The economic growth in countries of ASEAN is mostly in the average range of 5% (percent). It is proven from 2015 – 2019, with the highest economic growth of

8.48 percent in 2015, namely Myanmar. This is due to the fact that Myanmar has been separated from the general rule of the military junta, so that there are many changes that have great potential for increasing Myanmar's economic growth, including improving financial infrastructure, opening trade ties and foreign investment into Myanmar [2].



Source : Worldbank, 2021

Figure 1. Economic Growth in ASEAN Countries 2015 – 2019

The lowest economic growth during 2015-2019 was Brunei which reached -2.51 percent until 2018 it was still minus -2.48 percent. This is due to the drop in oil prices and production declines due to maintenance and repair work at major oil wells [3]. The economic slowdown in Southeast Asia was influenced by the slowdown in the global economy, especially China, which is the economic giant in Asia. The threat to economic growth in the Southeast Asian region is if the trade war between China and the United States drags on.

However, the instability of economic growth in several countries of ASEAN is a fact. So it needs to be seen from a macroeconomic aspect. Effect of economic macro aspects to economic growth can be seen in the following graph:

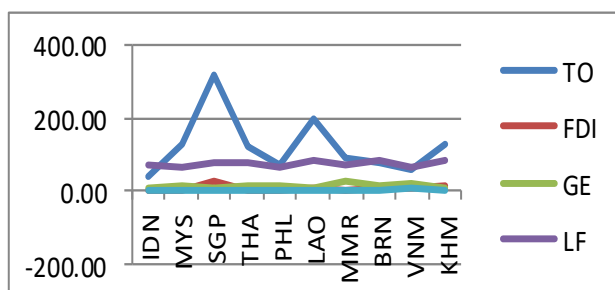


Figure 2. Macroeconomic Aspect in ASEAN Countries 2015 – 2019

2. LITERATURE REVIEW

2.1 Trade Openness in ASEAN Countries

The development of trade openness in each ASEAN member country fluctuates as a whole from year to year. The highest average trade openness is held by Singapore, which is 365.11 percent. Meanwhile, the lowest average trade openness is Myanmar, which is 47.01 percent.

2.2 Foreign Direct Investment in ASEAN Countries

Foreign Direct Investment or FDI is believed to be one of the important sources of financing for the state. The presence of FDI is expected to make a major contribution to development through the transfer of assets, technology and managerial skills to encourage increased economic growth. The highest average FDI is Singapore, which is 21.10 percent. The lowest average FDI is the Philippines, which is 1.74 percent

2.3 Government Expenditure in ASEAN Countries

Government expenditure in general, especially human capital and physical infrastructure can accelerate growth (growth-referring) so that government spending becomes one of the important factors in encouraging economic growth. The highest government expenditure is Brunei, which is 21.75 percent. On the other hand, the country with the lowest average government spending is Cambodia at 5.55 percent

2.4 Labour Force in ASEAN Countries

The country with the highest average number of labour force is Cambodia, which is 84.71 percent, this indicates that the productive age population in Cambodia is relatively high so that it has a supply value of workers who are of productive age while still working. On the other hand, the Philippines has the lowest average number of labour force, which is 63.57 percent, this is why the increase in unemployment in the Philippines has reached 2.2 million, which is unfortunate that these workers are no longer looking for work.

2.5 Inflation in ASEAN Countries

Inflation is seen as one of the most important factors affecting the economic growth of a country. Inflation is very important because the higher the inflation rate, the lower the economic growth rate. The highest average inflation rate is Myanmar at 9.99 percent. Meanwhile, the country with the lowest inflation rate was Brunei at -1.26 percent.

3. METHOD

This research was conducted in descriptive and associative types. It used Panel Pooled Data that is a

combination of time-series data and also cross-sectional data. The form in this research was data research in 10 ASEAN countries in 2005 - 2019. The independent variables in this study were Trade Openness, Government Expenditure, Foreign Direct Investment, Labour Force, and Inflation. The dependent variable was Economic Growth [4]. The model used was a panel data regression model with a Fixed Effect Model (FEM) approach. The model equation can become as follows:

$$Y = \beta_0 + \beta_1X1_{it} + \beta_2X2_{it} + \beta_3X3_{it} + \beta_4X4_{it} + \beta_5X5_{it} + \mu_{it} \quad (1)$$

Where :

- X1 = Trade Openness
- X2 = Foreign Direct Investment
- X3 = Government Expenditure
- X4 = Labor Force
- X5 = Inflation
- μ_{it} = Disturbance term

4. RESULT

4.1. Panel Data Model Selection Test

The Chow Test

The Chow Test used to choose or compare the finest model between fixed-effects and common-effects. Assuming the probability value is above 0.05, the chose model was the common-effect model, and no Hausman test was required. However, in case the probability is under 0.05, the model chosen was a fixed-effect model and continues with the Hausman test. By using Eviews 9, the results as follow:

Table 1. Result of Chow Test

Redundant Fixed Effects Tests			
Equation: FEM			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	9.034057	(9,135)	0.0000
Cross-section Chi-square	70.713250		90.0000

Source : Results of Data Processing with Eviews 8

The results from the chow test showed that the probability of cross-section F was 0.00. It used 0.05 error rate. The results from the test indicated that the probability value is 0.00 (under 0.05). So, the model that selected is the Fixed Effect Model.

The Hausman Test

Hausman test used to compare or choose the best model between random-effect or fixed-effect model.

Seen from the assumption that if the probability value is > 0.05, the select model is a random-effect model. the probability value was < 0.05, the select model was a fixed-effect model. By using Eviews8, the results as follow:

Table 2. Result of Hausman Test

Correlated Random Effects - Hausman Test		
Equation: UJI_HAUSMAN		
Test cross-section random effects		
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f. Prob.
Cross-section random	16.421241	50.0057

Source : Results of Data Processing with Eviews 8

The Hausman test using Eviews 8 showed that the value of the Cross-section Random probability of 0.0057 was <0.05, so the Fixed Effect Model (FEM) is the better model to be used in this model.

4.2. Panel Regression Estimation

This test was used to test the effect of the independent variable on the dependent variable in the form of combination of time and place data series. From the results of the study, it could be determined the amount of the effect of Trade Openness (X1), Foreign Direct Investment (X2), Government Expenditure (X3), Labor Force (X4) and Inflation (X5) on Economic Growth (Y). Based on the results of secondary data processing Table 3 using Eviews, Panel Regression Test with Fixed Effect Model, the results as follow:

$$Y = 2,58 + 0,03X1 + 0,18X2 - 0,29X3 + 0,01X4 + 0,11X5 \quad (2)$$

The results based on the research showed that the value of the regression coefficient constant was 2.58. This constant value means that if Trade Openness, FDI, Government Expenditure, Labor Force and Inflation are fixed (constant) then economic growth is 2.58.

Based on the regression results above, the model could be accepted simultaneously because the Prob (F-Statistics) was smaller than the 0.05 degree of error. So that the R-Squared value can be interpreted, where the R-Squared value from the panel data equation is 0.6439 or 64.39 percent. This showed that the contribution of the variable Human Capital, Infrastructure Investment and Infrastructure Consumption was 64.4% (percent), while the remaining 35.6 percent was influenced by other variables that are not included in the mode.

Trade Openness (X1) has a positive impact on economic growth (Y) in countries of ASEAN through 15 years of data with a regression coefficient of 0.0350.

which means that if Trade Openness increases by one percent, then economic growth increases by 30.50 percent with the assumption that other variables are fixed (ceteris paribus).

Table 3. Result of Fixed Effect Model

Dependent Variable: Y				
Method: Panel Least Squares				
Date: 08/15/21 Time: 19:37				
Sample: 2005 2019				
Periods included: 15				
Cross-sections included: 10				
Total panel (balanced) observations: 150				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.585345	10.24859	0.252264	0.8012
X1	0.030499	0.010103	3.018724	0.0030
X2	0.179566	0.069748	2.574494	0.0111
X3	-0.289738	0.078746	-3.679389	0.0003
X4	0.012537	0.126085	0.099436	0.9209
X5	0.114590	0.040094	2.858051	0.0049
Effects Specification				
Cross-section fixed (dummy variables)				
		Mean dependent		
R-squared	0.643983	var		5.682495
Adjusted R-squared		S.D. dependent		
S.E. of regression	0.607063	var		3.218793
Sum squared resid		Akaike info criterion		4.336424
Log likelihood	549.5954	Schwarz criterion		4.637488
		Hannan-Quinn criter.		4.458737
F-statistic		Durbin-Watson stat		
Prob(F-statistic)	17.44253	stat		1.734837
	0.000000			

Source : Results of Data Processing with Eviews 8

The regression model shows that FDI (X2) has a positive impact to Economic Growth (Y) in countries of ASEAN with a regression coefficient is 0.1796. which means in case FDI increased by one percent, then economic growth increases by 17.96 percent

Government Expenditure (X3) has a negative impact on Economic Growth (Y) in countries of ASEAN with a regression coefficient of -0.2897. which means that if government spending increases by one percent, economic growth will decrease by 28.97 percent.

The regression model also showed that the Labor Force (X4) has a positive impact on Economic Growth (Y) in countries of ASEAN with a regression coefficient

is 0.0125. which means in case the labor force increased by one percent, then economic growth increases by 12.5 percent.

Inflation (X4) has a significant positive impact on Economic Growth (Y) in countries ASEAN with a regression coefficient id 0.1146. which means incase inflation increases by one percent; economic growth will increase by 11.46 percent.

5. DISCUSSION

5.1. Effect Trade Openness on Economic Growth

Based on the results of hypothesis testing that the Trade Openness variable has a positive and significant effect on economic growth in ASEAN countries. The more Trade Openness increases, the increases economic growth. Many developing countries have implemented trade liberalization policies in different ways in the hope of encouraging economic growth [5].

The results of the research above were supported by research conducted by [6] that trade has a positive impact as well as significant effect on economic growth to six countries of ASEAN. It's different compared to the research of a case study in India found that in the short term the relationship between Trade Openness and economic growth has a negative effect, but has a positive effect in the long term, the movement is quite slow [6].

5.2. Effect Foreign Direct Investment on Economic Growth

FDI is an important point for the economy, because foreign investment can create stable and long-lasting economic relations between the two countries' economies. FDI has several contributions to the growth of economic by Productivity spill overs to local firm, Stimulating capital accumulation, and also through positive externalities in the form of knowledge [7].

These results are relevant to the results of research conducted by [8] that in Indonesia, Malaysia, Singapore, the Philippines and Thailand, intra-ASEAN FDI both have a positive influence on GDP. Similarly, [9] research showed that FDI has a positive effect on economic growth, the case study in Romania and Riyad's research (2012) that foreign direct investment has a positive and significant effect on economic growth in six ASEAN countries.

5.3. Effect Government Expenditure on Growth of Economic

The results of hypothesis testing showed that the government spending has a negative and significant impact on economic growth in countries of ASEAN. This means that significant negative effect from government spending on growth of economics in countries of ASEAN indicated that growth of economics in countries of ASEAN was not affected by the changes in government spending. If government spending increases, economic growth will decrease.

The results of the study were not relevant to the research of Wu, Tang, and Lin research which empirical results show that government spending helps economic growth, in other words, government spending has a positive and significant effect on economic growth [10], also not relevant to research conducted by Riyad's research that government spendings might have positive and significant impact on growth of economic in six countries of ASEAN [6].

5.4. Effect Labour Force on Growth of Economic

The results of hypothesis testing showed that the labour force has a positive and insignificant impact on economic growth in ASEAN countries. This means that the positive influence between forces on economic growth in ASEAN countries.

If the labour force increases, economic growth will also increase, but the effect was not significant. Thus, it means that the labour force in the long term does not make a major contribution to growth of economic in the countries of ASEAN. This was probably because of the fact that there are still many workers who do not have good quality human resources coupled with rapid technological advances where many production processes or production activities use machines.

The results of the study were not relevant to the research conducted by Riyad,s research that the labour force had a positive and significant impact on the growth of economic in six countries of ASEAN [6].

5.5. Effect Inflation on Economic Growth

The results of hypothesis testing showed that the inflation has a positive and significant impact on growth of economic in countries of ASEAN. That means that in case inflation increases, the growth of economic in the countries of ASEAN will also increase.

From the expert's point of view, this is relevant to Philips' view on the impact of inflation on economic growth which states that high inflation affects economic

growth by reducing the level of impact. This opinion is supported by Keynes's view and the structural perspective which believes that inflation is not harmful to economic growth. However, it is irrelevant when viewed from the view of the monetarist who argues that inflation is harmful to economic growth.

Basically, not all inflation has a negative effect on economic growth. Especially if there is mild inflation (< 10 percent). Mild inflation can actually encourage economic growth. Inflation will have a negative impact if > 10 percent.

When viewed from the results of this study, it is not relevant to the research conducted by Riyad,s where the inflation rate influenced the growth of economic in six countries of ASEAN significantly.

6. CONCLUSION

Trade Openness has a positive and significant effect on growth of economic in countries of ASEAN. These results concluded that the higher the influence of Trade Openness, the greater the impact on growth of economic.

Foreign Direct Investment (FDI) has a positive and significant influence on growth of economic in ASEAN countries. These results concluded that the higher the coefficient of influence of FDI, the greater the effect on growth of economic.

Government Expenditures have a negative and significant impact on growth of economic in countries of ASEAN. These results concluded that the higher the coefficient of government expenditure means the lower the effect on economic growth.

The Labor Force has a positive and insignificant effect on economic growth in ASEAN countries. One of the problems that commonly arises in the labor force field is the imbalance between the demand for labor and the supply of labor, at a given level of wages. These results concluded that increasing labor force in the long term does not make a major contribution to economic growth. This is because there are still many workers who do not have good quality human resources coupled with rapid technological advances where many production processes or production activities use machines.

Inflation has a positive and significant impact on growth of economic in several countries of ASEAN. These result concluded that the higher the coefficient of the effect of inflation, the greater the effect on economic growth. However, this is not in accordance with the existing theory and conditions. Because if inflation increases, it will reduce people's purchasing power,

reduce the value of the currency, and so on. In contrast, if inflation can encourage people to invest or use money for something more productive, this will trigger economic growth. If the inflation rate is < 10 percent, it means that it is not harmful to economic growth. Inflation is said to be dangerous if > 10 percent.

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