

# International Summit on Science Technology and Humanity ISETH 2023

ISSN: 2807-7245 (online)

# Analysis of the Effect of Labor Force, Exchange Rate, Foreign Direct Investment, and Export of Goods and Services on Gross Domestic Product in 6 ASEAN Countries

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#### **Abstract**

Purpose: Several elements influence the growth rate of GDP are closely related to maintain social and political stability. This study aims to scrutinize the effect of Labor Force, Exchange Rate, Foreign Direct Investment, and Export of goods and services on Gross Domestic Product in 6 ASEAN countries.

Methodology: This research was obtained from official website of worldbank.org and utilized secondary data. Analysis of data and hypothesis testing was carried out using the Panel Data Regression Method and the Fixed Effect estimation model through the Eviews 10 program. The sample of this study is panel data with a period of 2014-2021 and the countries included in this study are 6 countries, namely Indonesia, Malaysia, Singapore, Thailand, Philippines and Vietnam.

Results: In partial, the analysis indicate that the Labor Force, Foreign Direct Investment, and Export of Goods and Services had a positive and significant influence on Gross Domestic Product. Meanwhile, Exchange Rate showed a negative and insignificant influence on Gross Domestic Product. Simultaneously, the Labor Force, Exchange Rate, Foreign Direct Investment, and Export of goods and services had a significant effect on Gross Domestic Product in 6 ASEAN countries, with a coefficient of determination of 99,22%.

Applications/Originality/Value: Based on these results, it is recommended to optimize Labor Force, Foreign Direct Investment, and Export. In addition, it is necessary to maintain the steadiness of the Exchange Rate and analyze solutions in the face of current economic obstacles. It is also necessary to increase economic growth, so the government and stakeholders are responsible and repair to macroeconomic impacts.

#### Introduction Section

Economy is one of the most important sectors in the life of the current society. As a result, economic growth has become one of the main benchmarks of a good country's progress. Economic growth is defined as the increase in the capacity of a country to produce goods and services. The indicator used in measuring economic growth of a country is the growth of Gross Domestic Product (GDP), indicates the collective value of all goods and services produced within a country in a given period, which serves as a metric to measure the magnitude of national economic growth (Soekapdjo & Esther, 2019).

The growth of Gross Domestic Product (GDP) has consistently remained a focal point of research for numerous scholars. Inconsistent growth of GDP per capita in a single country will push up poverty rates and hinder progress in industry, education, health and others. Factors influencing GDP growth are relatively crucial to encourage political-social stability (Nurul Aini Raja Aziz & Azmi, 2017). Gross Domestic Product (GDP) has a role to decide the development of the country's economy in a specific period, whether evaluated in terms of prevailing price or constant price. The complete worth of finished both commodities of goods and commodities of services generated by creation process must be appropriate the grade of utilized items. Current-price Gross Domestic Product (GDP based on current price) is utilized to ascertain the trends and configuration of a nation's economy. On the other hand, constant Gross Domestic Product (GDP based on constant price) is employed to assess the capacity of resources in fostering real-term economic growth from one year to another, unaffected by price-related influences (Sihol Nababan, 2019). The large value of GDP represents the country's massive revenues, thus a lot of money that the country has to make investments (N. Sari & Hasmarini, 2023).

Based on data from worldbank.org, the graph below shows the amount of GDP in USD owned by six ASEAN countries in the period from 2014 to 2021.

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2017

2018

2019

2020

2016

Graph 1. GDP Growth

Source: (World Bank, 2023)

Based graph 1.1, it is known that the majority of GDP growth of 6 ASEAN countries has increased and decreased every year during the period 2014 - 2021. The highest average GDP growth of 6 ASEAN countries during the period 2014-2021 was achieved by Indonesia by USD 1.013.164.802.887. Meanwhile, the lowest average GDP growth of 6 ASEAN countries during the period 2014-2021 was achieved by Vietnam by USD 296.048.065.525. Indonesia has the highest GDP growth in 2021 of USD 1.186.092.991.320 and the lowest GDP growth in 2015 of USD 860.854.235.065. Malaysia has the highest GDP growth in 2021 of USD 372.980.957.208 and the lowest GDP growth in 2016 of USD 301.255.454.041. Singapore has the highest GDP growth in 2021 of USD 396.986.899.888 and the lowest GDP growth in 2015 of USD 308.004.146.058. Thailand has the highest GDP growth in 2019 of USD 544.081.056.185 and the lowest GDP growth in 2015 of USD 401.296.437.425. Philippines has the highest GDP growth in 2021 of USD 394.086.401.171 and the lowest GDP growth in 2014 of USD 297.483.247.101. Vietnam has the highest GDP growth in 2021 of USD 366.137.590.601 and the lowest GDP growth in 2014 of USD 233.451.484.774. The condition of GDP growth that fluctuates every year is inseparable from the existence of factors that affect the level of increase and decrease in growth.

One of the factors affecting GDP is the total labor force. Work opportunities are closely correlated with the labor force, that is, the capacity of potential jobs to accommodate the current workforce. Typically, labor force is defined as the working-age residents, typically ranging from 15 to 64 years old, engaged in employment or actively seeking work. The working-age population is segmented into two categories: (1) Non-labor force, such as students and college students that are still in school. (2) The labor force constitutes the segment of the population within the working-age bracket either employed or actively seeking employment. (Suhaili & Sugiharsono, 2019). High labor force numbers stimulate productive employment. The Solow-Swan theory explains that economic growth is not separated from the influence of the existence factors of production, such as capital investment, technology progress, population growth, and the labor force as a support for development. The more complete the facilities and production factors owned by a country, a better quality of economic growth is produced (Himannudin et al., 2022).

Measuring the growth of an economy in a country depends on the output that the country produced. Even though all the demand in the country has been covered, the only way to gain market share is by exporting to other countries. The number of exports give an idea of a country's ability to produce goods and services. This process serves as a business strategy to control international trade (Ardikaningtyas & Riyadi, 2023). Export activities reflect the existence of competition in international trade. Competitors both in the domestic and international market are important to move the efficiency of the market (Larasati & Sulasmiyati, 2018). Export activities implemented based on regulations and terms of trade approved between exporter and importer, with goods that cross the borderline being taxed by import and export duties (Rahmawati et al., 2018).

**Export of Goods and Services 6 ASEAN Countries** 800.000.000.000,00 700.000.000.000.00 600.000.000.000.00 Indonesia Malaysia 500.000.000.000,00 Singapore 400.000.000.000,00 -Thailand 300.000.000.000,00 Philippines 200.000.000.000,00 Vietnam 100.000.000.000,00 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

Graph 2. Export

Source: (World Bank, 2023)

According graph 1.2, shows that the growth of export of 6 ASEAN fluctuated in the period 2014-2021 both goods export and services export. Singapore had the highest export value of goods and services of USD 733.772.683.289 in 2021. Philippines recorded the lowest export of goods and services in 2014 with a value of USD 81.375.067.295. In addition, the highest average export from the goods and services sector during the study period was also achieved by Singapore of USD 619.057.242.933, while Philippines became the country with the lowest average of USD 93.897.425.087. However, each country at the end of the period in 2020 was equally successful in suppressing low export growth. Meanwhile, the increase in export that occurred was paralleled by an escalation in the domestic production rate of products and public services.

According to (Wahyoedi et al., 2021), the economy in the Asian region in 1990 was surrounded by dramatic economic growth or called The East Asia Miracle. Dramatic economic growth occurred in East Asian countries, but this did not escape the existence of Singapore, which also acted as one of The Asian Tiger Countries. The economic growth of The Asian Tiger Countries in 1990 averaged around 7 percent per year. This was a miracle because 25 years earlier, The Asian Tiger Countries were still relatively poor in input.

In addition, more specifically about economic growth in the Southeast Asian region. The share of total trade to the GDP of ASEAN countries shows a fairly high number, this supports the potential activities of the region in conducting international trade. It is known that the largest share of total trade is owned by Singapore at 330%, then Malaysia at 179%, followed by Thailand at 122%, Philippines at 84%, and Indonesia at 51%. Singapore has an economy with a very developed market share. In particular, Singapore is one of the top ten most open, competitive, and innovative countries in the world (Suliswanto, 2016).

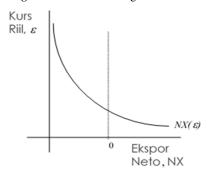
Export activities have an important role in economic growth. Export of goods and services is considered as the main engine of the economy. Firms become more innovative in order to stabilize market share with export. High export growth increases access to currency, thus increasing the national income and national surplus of the country. Foreign exchange earned from exports can be used to import raw materials and additional capital goods that cannot be produced domestically, especially electronic goods and equipment that support to increased investment (Bakari & Mabrouki, 2017); (Silaban & Rejeki, 2020).

Investment can be a source of economic income because it increases the source of capital from taxes and capital investment, as well as from job creation. One of the investment alternatives chosen by investors is foreign direct investment. The decision to invest in a country depends on the economic, social and political conditions of the destination country. According to the International Monetary Fund (IMF), foreign direct investment includes investments that have a long-term commitment of the foreign or home country entity to the recipient country (Setyadharma & Fadhilah, 2021); (Hananya & Handoyo, 2021).

According to (Chowdhury & Wheeler, 2008), investors with an export orientation will invest capital in countries with weak exchange rates, this is because investors are based on the motive of seeking high production efficiency. Currency depreciation results in lower production costs. However, if investors are based on the motive of meeting market needs, investors will invest capital in countries with strong exchange rates. Currency appreciation results in increased purchasing power.

International trade between countries, especially ASEAN member countries set money as a payment transaction instrument. The difference in the value of currency between countries that conduct international trade activities, causes an exchange rate.

Figure 1. Mundell Fleming Model



Source: (Mankiw, 2008)

Mundell Fleming model assumes perfect capital mobility and a fixed price level that causes short-term fluctuation in a small transparent economy. The model explains that exchange rate depreciation or appreciation causes changes in export and import (Husain et al., 2021). The economic status of a country consistently causes variations in the exchange rate. Generally, maintaining a stable exchange rate is crucial for fostering a favorable business environment (Khomariyah et al., 2022).

Exchange rate can be used to see the fundamental state of the economy in a country. Exchange rate fluctuation can affect the price of a product increase or decrease, so the exchange rate is used as an intermediary to increase competitiveness (Ardianti & Swara, 2018). In case the exchange rate of a currency in a country appreciates, it can reduce the price of export goods, meanwhile, if a nation's currency experiences a depreciates in its exchange rate, the cost of export goods from that country will rise (D. A. Permana & Faridatussalam, 2022).

Building upon the aforementioned phenomenon, researchers are keen on undertaking a study titled "Analysis of the Effect of Labor Force, Exchange Rate, Foreign Direct Investment, and Export of Goods and Services on Gross Domestic Product in 6 ASEAN Countries."

#### Literature Review

#### **Gross Domestic Product**

The definition of Gross Domestic Product (GDP) is an aggregate value of products and also services produced by entire agents in a country regardless of nationality during a single year (N. Permana & Nursaidah, 2019). Gross Domestic Product (GDP) is measured in two ways, namely at constant price and at current price. GDP based on constant price describes measure or score added of goods and services according to the price of particular or basic year. GDP based on current price represents GDP that describes the value added of goods and value of services, assessed by utilizing prices of the particular year (Prihatin et al., 2019).

According to Adam Smith's theory, as long as the market develops, economic growth will always occur, this triggers high market productivity, in addition to the rapid development of technology and innovation (Amirudin & Soebagyo, 2023). In the research conducted by (Putra, 2022), suggested that a wide market share is obtained by conducting international trade, export has an effect on economic growth through increased national income and accelerated development.

#### Labor Force

The labor force encompasses individuals aged 15 and above who contribute their labor for the creation of goods and services within a defined timeframe. This group comprises those currently employed, those actively seeking employment, and those entering the job market for the first time. Every year, the number of the labor force increases due to the increase in population. This allows a country to increase production (Setiawan et al., 2023). The Labor force participation rate or Economic Activity Rate (EAR) denotes the proportion between the labor force and the overall size of the entire population within the same age range in a nation. It shows everyone who is available for work, not including entrepreneurs or management, and means the population involved in manual work (Kamba et al., 2021).

According to (Afni Khairunisa, 2022), revealed that the number of labor force has a positive and significant effect on economic growth (GDP). Similarly, according to (Yogatama & Hidayah, 2022), labor force has a significant effect on economic growth.

#### Exchange Rate

The definition of exchange rate is the value of the domestic currency in relation to foreign currency. In an unrestricted market, this rate fluctuates in response to shifts in supply and demand. Therefore, the exchange rate system depends on the nature of the marketplace. The exchange rate is categorized into two forms: the nominal exchange rate, representing the comparative value between two countries' currencies, and the real exchange rate, which determines the rate at which goods are exchangeable between one country and another (Ratag et al., 2018). Exchange rate plays an important role in trade activities. Especially during the purchase decisions, exchange rate enables the price of goods and services set from one country to another (W. N. I. Sari et al., 2022).

The research by (Yazid, 2019) showed that the exchange rate has a negative and significant effect on the economic growth variable. The increase in the exchange rate results a decrease in economic growth. Output is decreasing and will affect GDP, it is consistent with Mundell Fleming's theory. In contrast to (Triyawan & Afifah, 2023), found that the exchange rate has a positive and significant effect on GDP partially.

#### Foreign Direct Investment

According to (Todaro & Smith, 2012), Foreign Direct Investment is an investment activity carried out by a multinational private company from one country to another. The conditions of a country and a conducive investment climate make investors interested in investing in that country. This condition is created by the policies implemented by each country. Therefore, FDI cannot be separated from the quality of government services to stakeholders (Widianatasari & Purwanti, 2021). Based on Harrod Domar's theory, it explains that investment is one of the factors that affect a country's economic income. Foreign direct investment from the demand side will create income, while from the supply side it will increase capital accumulation in increasing production capacity (Andinata et al., 2018).

The previous research found by (Shopia & Sulasmiyati, 2018), shows that FDI has a positive and significant effect partially on economic growth. In contrast to (A. C. P. Sari & Kaluge, 2017), shows that FDI has an insignificant effect on economic growth (GDP).

#### **Export of Goods and Services**

Export is the process of shipping goods or commodities from one country to others (Astuti & Ayuningtyas, 2018). Export is able to generate foreign exchange for the country so that exports play a crucial role in fostering the economic growth of a nation. The role of the government to extend the range of export is by cooperating with exporters. The government plays a role in stimulating income, through the production of export products that can compete with export products from abroad, while exporters have a role in increasing market share so that the products produced have export access to many countries (Hodijah & Angelina, 2021).

The previous research conducted by (Maulida et al., 2020), shows that export has a positive and significant effect on economic growth. Similar findings by (Pico, 2020), shows that export has a positive and significant effect on economic growth. Every increase in export will increase the economic growth (GDP) of a country.

#### **Research Methods**

This research aimed to investigate how the Labor Force, Exchange Rate, Foreign Direct Investment, and Exports of goods and services impact the Gross Domestic Product (GDP) of six ASEAN countries consisting of Indonesia, Malaysia, Singapore, Thailand, Philippines, and Vietnam during the period of 2014 to 2021.

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + e_{it}$$
 (1)

Where:

Y = Gross Domestic Product

 $\beta_0$  = Constant

 $\beta_1, \beta_2, \beta_3, \beta_4$  = Regression coefficient

 $X_1$  = Labor Force  $X_2$  = Exchange Rate

 $X_3$  = Foreign Direct Investment  $X_4$  = Export of goods and services

The equation becomes as follows:

$$GDP_{it} = \beta_0 + \beta_1 LF_{it} + \beta_2 KURS_{it} + \beta_3 FDI_{it} + \beta_4 EXPORT_{it} + e_{it}$$
(2)

Where:

GDP = Gross Domestic Product

 $\beta_0$  = Constant

 $\beta_1, \beta_2, \beta_3, \beta_4$  = Regression coefficient

LF = Labor Force KURS = Exchange Rate

FDI = Foreign Direct Investment EXPORT = Export of goods and services

This study employed a quantitative analysis approach. According to (Sugiyono, 2015), the quantitative method is a research methodology grounded in positivism philosophy, perceiving reality/problems/phenomena. It involves investigating particular demographics or groups, utilizing research tools to gather data, and employing quantitative/statistical analysis to examine hypotheses established. The research uses secondary data in the form of data obtained through the World Bank which is accessed through the website www.worldbank.org, with panel data analysis to identify and determine the influence of the variables Labor Force, Exchange Rate, Foreign Direct Investment, and Export of goods and services on Gross Domestic Product. The object of research focused on 6 ASEAN member countries, namely Indonesia, Malaysia, Singapore, Thailand, Philippines, and Vietnam in the 2014-2021 period. The utilization of panel regression analysis in this research provides more comprehensive and informative data, as panel data combine information from both cross-sectional and time series data. In addition, the results obtained are more diversified or varied, and data collinearity can be reduced.

### **Results and Discussion**

#### Results

Regression estimation model with panel data is selected to obtain the best estimation model output with an increase in the number of observations which have an impact on increasing the degree of freedom. Then the method used is the Chow Test and the Hausman Test to determine the best model in estimating panel data.

As follows is the output of the statistical test results, presented in table 1.

Table 1. Statistical Test Results

| Variable               | CEM         |        | FEM         |        | REM         |        |
|------------------------|-------------|--------|-------------|--------|-------------|--------|
|                        | Coefficient | Prob.  | Coefficient | Prob.  | Coefficient | Prob.  |
| C                      | -2.02E+10   | 0.4681 | -5.35E+11   | 0.0000 | -2.53E+11   | 0.0004 |
| LF                     | 8126.501    | 0.0000 | 18418.06    | 0.0000 | 11583.24    | 0.0000 |
| KURS                   | -11876346   | 0.0000 | -17667697   | 0.2015 | -14326448   | 0.0103 |
| FDI                    | 1.174733    | 0.1074 | 0.904922    | 0.0881 | 1.058481    | 0.0350 |
| EXPORT                 | 0.654505    | 0.0000 | 0.847342    | 0.0000 | 0.943325    | 0.0000 |
| $R^2$                  | 0.955418    |        | 0.992201    |        | 0.760352    |        |
| Adj. $R^2$             | 0.951270    |        | 0.990353    |        | 0.738059    |        |
| F-stat.                | 230.3762    |        | 537.1245    |        | 34.10737    |        |
| Prob.( <i>F</i> -stat) | 0.000000    |        | 0.000000    |        | 0.000000    |        |

Model Selection Test

(1) Chow Test

*Cross-section F* = 35.842234; Prob. *F* = 0.0000

(2) Hausman Test Cross section random  $\chi^2 = 25.149425$ ; Prob.  $\chi^2 = 0.0000$ 

Source: Secondary Data (Eviews10, 2023)

Based on the Chow Test results, the cross section F probability value is 0.0000, so the probability value is less instead of  $\alpha$  0.05, that basically means  $H_0$  (null hypothesis) rejected. Based on this explanation, the Chow Test results indicate the best model used for regression estimation of panel data is Fixed Effect Model (FEM).

The results from the Hausman Test show a probability value of 0.0000 for the cross section random chi square, which is lower than the significance level  $\alpha$  of 0.05. Thus, the null hypothesis ( $H_0$ ) is rejected. Based on this explanation, the Hausman Test results show that the best model used to estimate panel data regression is Fixed Effect Model (FEM).

From the panel data regression estimation results using Fixed Effect Model by Eviews 10 program, the following equation is obtained:

Table 2. Summary Table

$$GDP_{it} = -5.35E + 11 + 18418.06LF_{it} - 17667697KURS_{it} + 0.904922FDI_{it} + 0.847342EXPORT_{it} + e_{it}$$

$$(0.0000)^* \qquad (0.2015) \qquad (0.0881)^{***} \qquad (0.0000)^*$$

 $R^2 = 0.992201$ ; DW = 0.891975; F = 537.1245; Prob.F = 0.000000

Description: \*Significant at = 0.01; \*\*Significant at = 0.05; \*\*\*Significant at = 0.10. The number in brackets is the probability value (p value) of the t-statistic.

Source: Secondary Data (Eviews10, 2023)

Table 3. The Validity Test (t-Test) Results

| Variabel       | t-Statistic | Prob.  |
|----------------|-------------|--------|
| $\overline{C}$ | -6.959165   | 0.0000 |
| LF             | 8.194022    | 0.0000 |
| KURS           | -1.299738   | 0.2015 |
| FDI            | 1.750593    | 0.0881 |
| EXPORT         | 6.004403    | 0.0000 |

Source: Secondary Data (Eviews10, 2023)

The results of the t-test shows that the probability value of the Labor Force (*LF*) variable is  $0.0000 < \alpha 0.05$ , this indicated that there is a significant effect of the Labor Force (*LF*) on Gross Domestic Product (*GDP*) of 6 ASEAN countries in the period 2014-2021. Meanwhile, based on the results of the t-test, the probability of the Exchange Rate (*KURS*) variable is  $0.2015 > \alpha 0.05$ . This suggested that there is no significant impact of the Exchange Rate (*KURS*) variable on Gross Domestic Product (*GDP*) of 6 ASEAN countries during the period from 2014 to 2021.

However, the Foreign Direct Investment (FDI) variable has a probability of  $0.0881 < \alpha \ 0.1$ , it shows that there is a significant effect of the Foreign Direct Investment (FDI) variable on the Gross Domestic Product (GDP) of 6 ASEAN countries in the period 2014-2021. Furthermore, the Export of goods and services (EXPORT) variable has a probability of  $0.0000 < \alpha \ 0.05$ , it shows that there is a significant effect of the Export of goods and services (EXPORT) variable on the Gross Domestic Product (GDP) of 6 ASEAN countries in the period 2014-2021.

In addition, the results of the F test (simultaneous test) reveal the F probability value of 0.0000, which is below the significance level of  $\alpha$  at 0.05. This conducted that as a whole, the independent variables—Labor Force, Exchange Rate, Foreign Direct Investment, and Export of goods and services—significantly influence the dependent variable, Gross Domestic Product (*GDP*) of 6 ASEAN countries from 2014 through 2021.

The function of  $(R^2)$  is employed to assess the proportional effect of the independent variables and to gauge the model's capacity to elucidate the dependent variable. The results of the calculation obtained  $(R^2)$  value of 0.992201. In this instance, it indicated that the independent variables—Labor Force, Exchange Rate, Foreign Direct Investment, and Export of goods and services—contribute 99.22% to the dependent variable, which is the Gross Domestic Product (GDP) of 6 ASEAN countries during the period from 2014 until 2021. The residual 0.78% is accounted for by another variables not encompassed within the model research.

#### Discussion

A regression coefficient of Labor Force obtained equal to 18418.06. The outcomes of the partial test (t-test) reveal that the probability value of  $0.0000 < \alpha$  5%. This implies that the Labor Force had a positive and partially significant impact on the Gross Domestic Product (GDP) in 6 ASEAN countries during the period spanning from 2014 to 2021. For every 1 person increase in the Labor Force, it will significantly increase Gross Domestic Product (GDP) by USD 18418.06. Thus, the more number of the Labor Force increases, Gross Domestic Product will also increase. The outcomes of this study are consistent with the theories and hypotheses introduced by Robert Solow and Trevor Swan, indicating that the quantity of the Labor Force positively influences economic growth.

The outcomes of this research stem from (Afifah et al., 2019), in accordance with this research finding, the labor force exhibited a notable and positive impact on the economic growth of ASEAN countries. The more labor force increases in ASEAN countries, the economic growth of a country will also increase. At the same time, the high level of population in ASEAN countries is dominated by the developing countries whose population are still productive age, so that the population can potentially become a qualified labor force.

A regression coefficient of Exchange Rate obtained equal to -17667697. The partial test results (t-test) show that the probability of  $0.2015 > \alpha$  5%, means that the Exchange Rate had a negative but insignificant partial effect on Gross Domestic Product (GDP) in 6 ASEAN countries during the period 2014-2021. Every 1 per USD increase in Exchange Rate will reduce Gross Domestic Product (GDP) by USD -17667697 but this reduction had an insignificant effect on Gross Domestic Product (GDP) statistically. This is because Exchange Rate had indirect effects. However, according to Mundell Fleming's theory that Exchange Rate had a negative effect on economic growth, Exchange Rate that increased will have an effect on lower net export. The condition of low net export results in decreased output, so that economic growth will be down (Zulzilah et al., 2022).

The results of this study contradicted research from (Ismanto et al., 2019), the study indicated that the exchange rate positively effect on economic growth. Higher the exchange rate, economic growth will become higher as well. Exchange rate is utilized in conducting various transactions by the entire world population, through international trade. Thus, when it comes to economic growth, the exchange rate affects an open economy.

A regression coefficient of Foreign Direct Investment obtained equal to 0.904922. The partial test results (t-test) show that the probability of 0.0881, it means that Foreign Direct Investment had a positive and significant effect on Gross Domestic Product (GDP) of 6 ASEAN countries in the period 2014-2021. Every USD 1 of increase in Foreign Direct Investment will increase Gross Domestic Product (GDP) by USD 0.904922, and statistically significant effect on Gross Domestic Product (GDP). The research is in line with Harrod Domar's hypothesis and theory. Investment as capital accumulation. The more capital increases the amount of production, so that the country's economic income grows.

According to (Afifah & Astuti, 2020), (Milliardo, 2018), and (Wau et al., 2022) shows the results that FDI has a positive and significant effect on economic growth. Investment encourages an increase in national income by utilizing resources effectively and efficiently in various productive sectors.

A regression coefficient of Export of goods and services obtained equal to 0.847342. The partial test results (t-test) show that the probability of  $0.0000 < \alpha 5\%$ , it means that Export of goods and services had a positive and significant effect partially on Gross Domestic Product (GDP) in 6 ASEAN countries in the period 2014-2021. Every USD 1 of increase in Export of goods and services will increase significantly Gross Domestic Product (GDP) by USD 0.847342.

In accordance (Dhea, 2022), shows that export has a positive and significant effect on economic growth in the long run. This is consistent with international trade theory. The more export, the greater the flow of capital into the country. The production of goods will increase, so the rate of economic growth will increase in the long run. In contrast (Asbiantari et al., 2016), the outcomes of this study revealed that the impact of exports on economic growth was positive, yet statistically insignificant. It showed that export had a unidirectional relationship with economic growth, but in order to obtain a significant effect, it is necessary for the government to play a role in guiding the policies that have been set. The same results found in the research (Mehrara & Baghbanpour, 2016), export had insignificant effect on economic growth in aggregate terms, but in sectoral terms, export demonstrated a noteworthy impact on economic growth.

## Conclusion

This study indicated that the independent variables which include: Labor Force, Exchange Rate, Foreign Direct Investment and Export of goods and services simultaneously had an effect on the dependent variable Gross Domestic Product (GDP). Coefficient of determination ( $R^2$ ) value obtained from the regression results stands at 0.992201. This suggests that the independent variable can account for 99.22% of the variation observed in the dependent variable, Gross Domestic Product (GDP), while the remaining 0.78% is explained by other variables. Based on the regression results, of the four independent variables used, there are three variables that had a significant effect on Gross Domestic Product (GDP), the variables are Labor Force, Foreign Direct Investment, and Export of goods and services. The Labor Force variable showed a regression coefficient of 18418.06, with a probability value of 0.0000, which is less than the significance level of 5% ( $\alpha$ ). This indicates a significant and positive influence of the Labor Force on the Gross Domestic Product

(GDP). Thus, if the number of the Labor Force increased by 1 person, the Gross Domestic Product (GDP) of 6 ASEAN countries would increase by USD 18418.06. The Foreign Direct Investment variable showed a regression coefficient of 0.904922, with a probability value of 0.0881. This indicates a significant and positive influence of the Foreign Direct Investment on the Gross Domestic Product (GDP). Thus, if the number of the Foreign Direct Investment increased by USD 1, the Gross Domestic Product (GDP) of 6 ASEAN countries would increase by USD 0.904922. The Export of goods and services variable showed a regression coefficient of 0.847342, with a probability value of 0.0000, which is less than the significance level of 5% ( $\alpha$ ). This indicates a significant and positive influence of the Export of goods and services on the Gross Domestic Product (GDP). Thus, if the number of the Export of goods and services increased by USD 1, the Gross Domestic Product (GDP) of 6 ASEAN countries would increase by USD 0.847342. As for other variables, the Exchange Rate displayed an insignificant negative impact.

Based on this research, the large number of human resources must be maximized by each country to produce a competent and qualified workforce. Debriefing through education both formally and informally is needed. Labor is not only created to compete domestically, but can also learn the skills needed to compete abroad. This is to expand employment opportunities and avoid unemployment. In addition, the utilization of capital coming in through foreign direct investment needs to be optimized, so that productivity increases. If the amount of production increases, domestic product needs are met, then export of products can be carried out. Thus, it is certain that if the labor force, foreign direct investment, and export in a country increase, economic growth as measured by Gross Domestic Product (GDP) will increase (positive and significant effect).

This research can be used as a consideration for the government and related institutions or agencies in setting policies. Policies that can be applied include the government can encourage the training of human resources to obtain output in the form of qualified labor force quality, this is certainly balanced with the availability of broad employment opportunities. Then facilitate exporters in international trade by improving trade sector facilities and infrastructure, improving the flow of goods distribution, and securing the domestic market. A country needs to have a relatively stable currency in order to attract investment capital from foreign investors, so the government needs to maintain exchange rate stability. In addition, to avoid the negative impact of foreign direct investment, it can regulate the maximum percentage of share ownership. For future researchers, it is recommended to provide additional economic indicators and expand observations, such as examining all ASEAN member countries and adding the latest research period.

# **Acknowledgements**

The author expresses gratitude to Allah SWT and all parties who have contributed to the realization of this research paper. To Mrs. Sitti Retno Faridatussalam, S.E., M.M. who always patiently guided and directed me to complete this paper. To Prof. Dr. Anton Agus Setyawan, S.E., M.Si. as dean of the Faculty of Economics and Business, Universitas Muhammadiyah Surakarta.

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