The impact of pandemic COVID-19 on remittances and macroeconomy fundamental in ASEAN 6

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Abstract

Globalization and liberalization increasingly provide opportunities for each country to increase regional and global cooperation. Socio-economic integration is also increasing, along with community cooperation in the regional and global scope. This study aims to determine the effect of remittances and other macroeconomic variables such as FDI, inflation, and export-import on GDP per capita in ASEAN 6 countries. The panel data analysis method used is regression using panel data sourced from the World Bank and ASEAN datasets in the form of annual data. The estimation results from FEM found that exports and remittances showed a significant positive effect on GDP per capita in ASEAN 6. In addition, imports showed a significant negative effect on GDP per capita in ASEAN 6. Meanwhile, several macroeconomic variables that were not significant were FDI, which showed a significant negative effect. Positive but not significant, inflation has a negative but not significant effect on GDP per capita in ASEAN 6. The emphasis on the positive effect of remittances on GDP per capita proves that the flow of remittances into developing countries will help increase income per capita. Vice versa, a crisis that hinders the increase in the enthusiasm of emigrants. The COVID-19 pandemic delays the emigrant's production activities and increases that will hinder the flow of remittances into the country of origin, such as in ASEAN 6 countries.

Keywords: Internation migration, Macroeconomy, Pandemic COVID-19, Remittances

JEL Classification: F22, F24, F41, J61

INTRODUCTION

Globalization and liberalization are increasingly providing opportunities and opportunities for every country to increase cooperation both regionally and globally along various lines. Socio-economic integration also aligns with community cooperation in the regional and global scope. This integration facilitates cooperation and development between countries (Lloyd & Smith, 2004). In his theory, Lee (1966) states that migration can be influenced by driving factors from the country of origin and pulling factors from the destination country, so internal and external factors have a large influence. In addition, labor market conditions and internal macroeconomic factors within a country also play a role in influencing international migration. Labor mobility through international migration also contributes to a country's financial condition.

Remittances generated by emigrants sent to their home countries have a major impact on families' financial development and welfare in their home countries. Remittances can increase household and state income, thereby reducing poverty. In addition, remittances also have great potential benefits related to international labor remittances for developing countries (Sari, 2019; Manzoor, 2018). In this context, remittances are one of the sources of income from emigrants that a household and state receive (in the form of foreign exchange) to support the domestic economy and development.

According to Adams & Cuecuecha (in Noveria, 2017), there are three categories of the use of remittances. First, remittances as income earned by households. Second, remittances as a cause of changing household consumption behavior. Third, remittances as temporary income are used to improve the quality of human resources. ASEAN's mobility and labor market conditions have a high volume, reflected in the states in recent years. Labor mobility through international migration is mainly carried out by developing ASEAN countries to developing countries like Malaysia and Singapore. Labor mobility through international migration is also influenced by various factors, both social and economic perspectives. In developing countries, remittances are one of the largest sources of income and money flows (Acosta et al., 2008; Meyer & Shera, 2017). Remittances are an important component of capital inflows, as is export income, contributing to economic growth. Remittances are the same as other capital inflows that can be used as a source of finance for the state (Adenutsi, 2011).

One form of cooperation that can benefit each country is freedom in the labor market. International migration flows in ASEAN countries experience different dynamics. Based on World Bank data, which is found longitudinally every five years, Malaysia, Singapore, and Thailand dominate immigration (in-migration) compared to emigration (out-migration) (Figure 2).
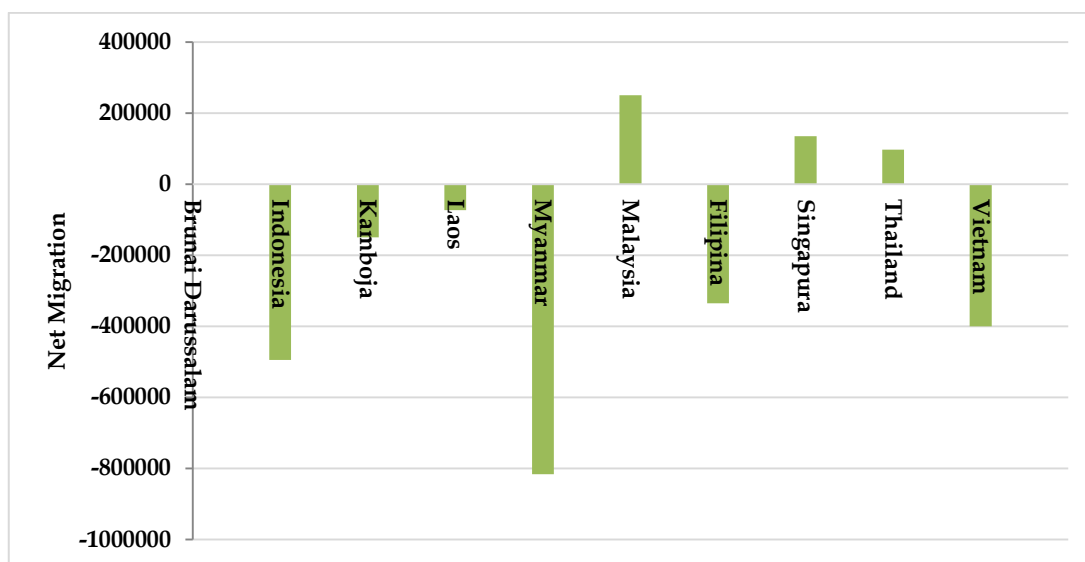

Figure 1. The flow of migration (net migration) in ASEAN Year 2017
Source: World Bank, 2021

Figure 2 also shows that Myanmar's migration flow is dominated by in-migration. A negative value reaches 816564 inhabitants, which means that migration flows are dominated by emigration in various countries with various underlying factors. Then Indonesia, Vietnam, and the Philippines showed a large negative number.

Furthermore, Cambodia and Laos also showed negative numbers, although they tended to be small. It indicates that the international labor force in and out of mobility in Cambodia and Laos tends to be below. This condition will also impact state income from remittances in each country.
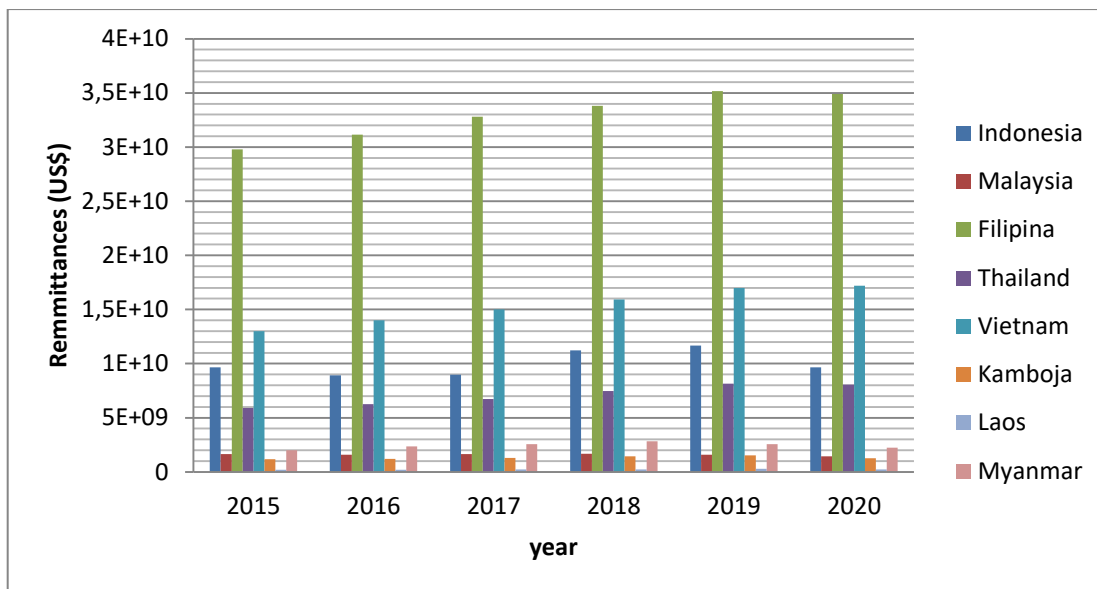

Figure 2. Remittances in ASEAN Countries
Source: World Bank, 2021

The performance of remittances in ASEAN shows conditions in line with the migration flow. Figure 2 shows that countries with migration flows that are dominated by emigration make a large contribution to remittances. This condition is shown in the countries of Indonesia, the Philippines, Thailand, and Vietnam, with large remittances. Meanwhile, countries with low migration flow, especially low emigration, also generate relatively small remittances, such as Myanmar, Laos, Cambodia, and Malaysia. International population mobility through migration also impacts economic growth through remittance performance.

2020 saw a massive decline in remittances in almost all ASEAN countries caused by the COVID-19 pandemic. It resulted in a decrease in remittances to the country of origin. Some researchers have found that remittances have a positive impact on economic growth, such as the findings by Jongwanich et al. (2014), Jebran et al. (2016), Hassan & Shakur (2017), Afriska et al. (2018), Manzoor (2018); Abduvaliev & Bustillo, (2020). There is also a study that provides inconsistent results and shows a negative impact of remittances on economic growth conducted by Chami et al. (2008), Barajas et al., (2009), Alkhathlan, 2 (013), and Hassan et al., (2016). According to the data above, remittances can positively impact economic growth through increased consumption and poverty reduction (Abduvaliev & Bustillo, 2020). Apart from the remittance factor, economic growth is also influenced by the performance of macroeconomic fundamentals in each country, including investment, inflation, trade openness (open trade), and government spending (Meyer & Shera, 2013: Abduvaliev & Bustillo, 2020; Jebran et al. al., 2016).

In contrast to previous research, this position will emphasize the discussion of remittances with the COVID-19 phenomenon, one of the obstacles to global economic activity, including the economic activities of immigrants and emigrants in the ASEAN

region. In addition, this study hypothesizes that an increase in remittance income for a country can increase per capita income, which reflects people's welfare. Judging from the current phenomenon, the presence of the COVID-19 outbreak also impacts macroeconomic performance and the performance of international migration. The social and physical have had a significant impact on the economy and remittance flows as a reflection of the performance of international migration.

METHODS

This study uses secondary data sourced from the World Bank and ASEAN data set with the object of ASEAN countries. The selection of objects for ASEAN countries is based on the phenomenon of international migration increasingly occurring in ASEAN, which impacts increasing remittances for their home countries to contribute to growth and development. Based on previous literature studies and the empirical phenomena presented, this research uses macroeconomic data such as investment, inflation, trade openness, and government spending and remittance variables in influencing economic growth proxies by GDP in ASEAN countries.

The data used is panel data, a combination of data time series (From 2011 to 2020) and cross-section (ASEAN 6 countries). The analytical method used is a multiple linear regression method using several independent variables, including investment, inflation, trade openness, government spending, and remittance variables. In regression analysis using panel data, the authors carried out several stages to choose the best model between Pooled Least Square (PLS), Fixed Effect Model (FEM), and Random Effect Model (REM). The best model selection among the three models uses the Chow, Hausman, and LM tests. The specification of the research model used is the Cobb-Douglass double log-linear production function as follows:

$$lnGDP\_cap_{it} = \beta_0 + \beta_1 lnREM_{it} + \beta_2 lnINV_{it} + \beta_3 lnINF_{it} + \beta_4 lnTRDe_{it} + \varepsilon_{it}$$

Where GDP_cap is real GDP per capita; REM is per capita remittances in US \$; INV is FDI inflow which is used to capture the effect of external sources of capital (US \$); INF is the GDP inflation deflator (percent); TRD is the ratio of export and import price index to capture the impact of trade, or economic openness (US \$).

RESULTS AND DISCUSSION

This study emphasizes the effect of remittances from emigrants in several countries in influencing the per capita income of the home country, which is proxies by the GDP per capita of each ASEAN 6 country. This can be an indicator to see remittance performance as a measure of the success of workers working abroad and contributing to the country of origin's financial inflows and foreign exchange reserves. These countries include Indonesia, Malaysia, Thailand, the Philippines, Vietnam, and Cambodia.

The data stationary test aims to determine the stationary data at the level, first or second different. In testing the stationary data test in panel data using four tests, namely the Lin, Levin & Chun (LLC) test; Im, P Magnification & Shin (IPS) test; ADF Fisher and Phillips Peron (PP). In addition, there is a test for selecting the best model because, in the panel data model, there are three models which will be selected, which is the best model for further estimation. There are three tests in choosing the best model: Chow test, Hausman test, and Lagrange Multiplier (LM) test.

Table 1 will show the data stationary test results using the LLC, IPS, ADF, and PP tests on each of the variables used in the study.

Table 1. Result of stationary

Variables	LLC	IPS	ADF	PP
GDP_Cap	0.0988*	0.3730	0.3394	0.0001**
Remittance	0.0001	0.0000*	0.0686*	0.0097
Export	0.0005*	0.0071**	0.0958*	0.0072
Import	0.0005*	0.0162*	0.0667	0.0080**
FDI	0.0113*	0.0172**	0.0065**	0.0268
Inflation	0.0000	0.0181	0.0084	0.0000*

Note: () stationary at the level; (*) is stationary in the first difference; (**) stationary on a second difference. Alpha Significance of 5% and 10%

The results of the data stationary test with the unit root through the LLC, IPS, ADF, and PP tests showed that the data on each variable had stationary at different levels. The GDP per capita variable has data stationary in the LLC and PP tests shown in Table 1. In the LLC test, the GDP per capita variable is stationary at the first difference level with a probability value smaller than alpha 10%, namely 0.0988. In addition, in the PP test, the GDP per capita variable has stationary at the second difference level with a value of 0.0001 smaller than alpha 5% and 10%. The remittance variable has stationary at the level in the LLC and PP tests, with each probability value smaller than alpha 5% and 10%, which is 0.0001 in the LLC test and 0.0097 in the PP test. Exports also show different stationary in each of the unit root tests. In the LLC test and stationary ADF at the first difference level, each probability value is smaller than alpha 5% and 10%, namely 0.0005 and 0.0958. In the ADF test, the export is stationary at the second difference level with a probability value of 0.0071. In the PP test, it has stationary at the level with a value of 0.0072, smaller than alpha 5% and 10%.

In the imported variable, the LLC and IPS tests are stationary at the first difference level with a probability value of 0.0005, smaller than alpha 5% and 10% for the LLC test. IPS tested has stationary at the first difference level with a probability value of 0.0162 smaller than alpha 5% and 10%. While in the ADF test, the imported variable is stationary at the level with a probability value of 0.0667 and in the stationary PP test at the second difference level with a probability value of 0.0080 smaller than alpha 5% and 10%. FDI has stationary at the first difference level in the LLC test, and in the IPS and ADF tests, it has stationary at the second difference level, while in the PP test, it is stationary at the level. Each probability value is smaller than alpha 5% and 10%, namely 0.0113 in the LLC test, 0.0172 in the IPS test, 0.0065 in the ADF test, and 0.0268 in the PP test.

Furthermore, for the inflation variable, the stationary test on the LLC, IPS, and ADF test is stationary at the level and on the stationary PP test at the first difference level. The probability value of each confirms this result is smaller than alpha 5% and 10%, which is 0.0000 in the LLC test, 0.018 for the IPS test, the ADF test of 0.0084, and the PP test of 0.0000. These results confirm that the data used in the study can be used further to be estimated because they have stationary in all variables in each test.

After the stationary data test has been carried out, the model is in the panel model consisting of the common effect model, the fixed-effect model, and the model selected random effect. Three tests were carried out in selecting the model: the Chow test, Hausman test, and Lagrange Multiplier test. Chow test to see the best model between the common and fixed-effect models by looking at the Chi-Square probability value. If the Chi-Square probability value is smaller than alpha 5%, the best model chosen is the fixed effect and vice versa. If the probability value is greater than alpha%, the best

model is chosen as the common effect.

Furthermore, the Hausman test is used to see the best model between the random effect and the fixed effect by looking at the random cross-section value. If the random cross-section value is greater than 5% alpha, then the best model used is the random effect and vice versa if the random cross-section value is smaller. From alpha 5%, the best model used is the fixed effect. Meanwhile, the Lagrange Multiplier test is used to see the best model between random and common effects. This test is seen from the probability value of Breusch Pagan. If it is smaller than alpha 5%, then the best model is a random effect, and if it is greater than alpha, then the best model is a common effect. Table 2 presents the best model test results in this research panel model.

Table 2. Best model test

	Probability	Description
Chow test	0.0000	Fixed Effect
Hausmand test	0.0000	Fixed Effect
Lagrange Multiplier test	0.0000	Random effect

Table 2 shows the best model tests used in panel data. The results show that the best model that can be further estimated is the fix effect model. The probability value confirms this result in Chow's test of 0.0000, which confirms that the best model is the Fix Effect Model compared to the common effect model. Furthermore, to see the best model between the random model effect and the fixed effect with the Hausman test, which shows the probability value of 0.0000 is smaller than alpha 5%, which means the best model between the two is the fixed effect. Then, the next test is the Lagrange Multiplier test to see the best model between the random and common effects. The result is that the Breusch Pagan probability is 0.0000 smaller than alpha 5%, confirming that the best model used is the random effect. Based on these results, the best model for which further estimation can be made is the fixed effect model.

Furthermore, the model is a fixed effect estimated to see the effect of the variables of remittances, exports, imports, FDI, and inflation on GDP per capita in ASEAN 6 countries. The estimation results of the fixed effect model are shown in Table 3 as follows.

Table 3. Estimation results of Fixed Effect Model (FEM)

Variable	Coefficient	Probability	Description
FDI	0,0009306	0,5028	Positive not significant
Export	33,33081	0,0613	Positive significant
Import	-51,56226	0,0071	Negative significant
Inflation	-12,74994	0,5691	Negative not significant
Remittance	1,31E-07	0,0000	Positive significant

The estimation results in the fixed effect model show that the variables of remittances, exports, and imports have a significant positive effect on GDP per capita in ASEAN 6 countries. Meanwhile, other macroeconomic variables such as foreign capital inflows and inflation do not significantly affect in different directions. Imports show a negative but insignificant effect. Meanwhile, the direct foreign capital inflow variable shows a positive but insignificant effect. In addition, inflation also does not show a significant effect but shows a negative direction. The remittance shows a probability value smaller than the alpha value of 5%, namely 0.0000 with a coefficient of 1,31E-07. This result means that when there is an increase in remittances by one unit, it will impact an increase in GDP per capita by the coefficient value of 1,31E-07 and vice

versa. If the remittance decreases by one unit, it will reduce GDP per capita in ASEAN 6 countries by the coefficient value of 1,31E-07.

During the last two decades, the volume of remittances to countries of origin or remittances has attracted significant attention, especially in developing countries. Some of the basic reasons migrants send part of their income are altruism, self-interest, loan repayments, and insurance motives. During the 2008 financial crisis, the appreciation of the migrant currency against the Philippine peso led to an increase in household remittances received from abroad (Vargas-Silva et al., 2009). This remittance can affect a large number of variables in the recipient country because of its complexity in influencing the conditions of the recipient country.

Remittances are also a source of household income in poor areas so that through the flow of remittances will have a good impact on rebalancing growth by expanding domestic demand. This income also helps smooth consumption and encourages human resource development by increasing household capacity to spend on education, health, and nutrition. Remittances promote economic growth by spurring entrepreneurial activity, increasing labor productivity, and boosting consumption and investment demand. If they increase the income of the poor, such flows can reduce poverty and income inequality. The complexity of remittances can also contribute to macroeconomic stability through foreign exchange and improve creditworthiness. In addition, by reducing credit constraints and funding physical infrastructure, remittances can encourage financial and economic development (Vargas-Silva et al., 2009).

Meanwhile, remittances can also have detrimental consequences on the economic and social dimensions. Remittances can hinder growth and cause the exchange rate to appreciate, which will lead to lower trade competitiveness, and increasing inflation. From a business cycle perspective, remittances can be very useful for Asian countries to react adequately to fluctuations in the output cycle. If remittances are against the domestic economy, the receiving country could potentially use remittances as part of their strategy to offset negative cyclical fluctuations in output. On the other hand, if the sender is mostly interested in investing in the home country, then the remittance may decrease following negative cyclical fluctuations in output.

From the financial aspect, remittances sent to countries with inadequate credit market conditions can ease credit constraints as capital for business. The money remittance market is experiencing significant dynamics given the rapid pace of modernization. This will have an impact on financial access to remittances. This condition requires policy response initiatives, including:
1. Raise awareness about the scale and scope of Asian remittances, especially to rural areas, to encourage the private sector, civil society, and government to be directly involved in maximizing the development impact of these remittance flows.
2. Applying the General Principles for International Money Transfers.
3. Addressing legal and regulatory constraints to promote more competition in the market.
4. Partnering with commercial banks, in particular, to expand the financial options available to remittance recipient households.
5. Support the modernization of other major remittance payers, such as post offices, microfinance institutions, and mobile network operators.
6. Strengthen commitment to financial inclusion, particularly through literacy programs.
7. Promote asset development and diaspora investment mechanisms in home countries.

Southeast Asia is the world's most dynamic and diverse remittance center, with

nearly 13 million migrants living abroad. The outflow of migrants has increased in nearly every country over the past decade, with the largest outflow from the Philippines (4.28 million) and the largest inflow to Malaysia (2.36 million). The inflow of remittances from 2000 to 2012 increased significantly in every country in Southeast Asia. The Philippines, the world's third-largest recipient of remittances with US $ 24.3 billion and more than 10 percent of GDP, accounts for more than half of all remittances to Southeast Asia. Other main recipients of remittances in the sub-region are Vietnam (the US $ 9.1 billion), Indonesia (the US $ 7.2 billion), and Thailand (the US $ 4.1 billion). At the same time, Malaysia, Singapore, and Thailand are attracting more migrants to work in developing countries. The three countries currently accommodate nearly 6 million migrant workers. This is more than double the number of nationals who have migrated abroad. However, Indonesia, Myanmar, and Vietnam continue to send more workers than they receive (IFAD, 2013). During the COVID-19 pandemic, remittances declined, resulting in a decreased flow of remittances in countries with many emigrants. This is caused by a decrease in wages and work activities during the pandemic, which affects the decline in per capita income of a country and occurs massively in all countries, especially developing countries. This condition confirms that remittances have a significant positive effect on GDP per capita in ASEAN 6 countries. Projections made by ADB predict that remittances will decline to reach USD 12 billion in Southeast Asia.

The export variable also shows a significant positive effect on GDP per capita in ASEAN 6. The coefficient value confirms this result on the export variable of 0.499388 and a probability value of 0.0000 smaller than alpha 5%. This result means that if there is an increase in exports by one unit, it will impact an increase in GDP per capita in countries and vice versa when there is a decrease in exports by one unit. It will reduce GDP per capita by the coefficient value.

Export is one of the contributors to a country's economy. The export element can affect several other components: the trade balance, balance of payments, foreign exchange reserves, and economic growth. It is important to pay attention to the complexity of this export effect so that its performance can significantly affect the economy. Regional cooperation, as outlined in the AEC (ASEAN Economic Community), also contributes to aspects of international trade through beneficial regulations. Several regulations, including the tariffs that apply intra ASEAN, have been removed, and almost 98.6% of tariff posts have been removed to facilitate trade. This effort is being paid attention to and is being intensified to improve trade facilities and minimize trade barriers in regional countries (ASEAN Integration Report, 2019).

The integration of digital technology also plays an important role in international trade. Through ATIGA (ASEAN Trade in Goods Agreement), an agreement related to international trade in goods has integrated technology in the form of e form D for media to give tariff preference based on ATIGA through the ASW platform. This is one of the steps so that exporters cooperating with the international scope have an operationally independent certificate. All ASEAN member countries have also been connected to a web-based system at the ASEAN level as providers and custodians of trade and customs-related information.

Other initiatives on trade facilitation include the ASEAN Seamless Trade Facilitation Indicators (ASTFI), which were adopted in 2017 and designed to measure and monitor the implementation of trade facilitation measures across the region. Practical trade facilitation tools were also developed, such as the ASEAN Tariff Finder, a free, online search engine for up-to-date information on tariff-related information

under various ASEAN Plus One FTAs, and the ASEAN Solution for Investment, Services, and Trade (ASSIST), the mechanism does not binding and consultative for fast and effective solutions to operational problems faced by ASEAN-based companies in implementing ASEAN economic agreements (ASEAN Integration Report, 2019).

Apart from the export of goods, in the intra-ASEAN scope, there is also an increase in service exports. Services exports were recorded to have increased by 50.7% in 2018. Intra-ASEAN service exports grew by an average of 5.5% per year, compared to 5.0% for service imports. ASEAN service exports were valued at USD 404.9 billion in 2018, an increase of 89.4% from USD 213.8 billion in 2010, while imports of services reached USD 373.8 billion in 2018, an increase of 65.8% from USD 225.4 billion in 2010.

Although ASEAN has recorded a deficit in its services trade since 2010, significant growth in services trade has narrowed the ASEAN trade deficit (ASEAN Integration Report, 2019). Since 2016, ASEAN has recorded a trade surplus in its services trade, with services exports growing higher than imports at 8.3% per annum between 2010 and 2018, compared to 6.5% for imports. In 2018, ASEAN's top three service exports were travel services (34.3%), other business services (22.1%), and transportation services (18.6%).

From the import side, services that dominate include transportation services (30.7%), other business services (24.1%), and travel services (21.1%). Travel services, other business services, and transportation services have consistently dominated the exports and imports of ASEAN services in the last decades. Travel and Transportation consistently recorded the highest share during the 2010-2018 period in terms of the services trade sub-sector. At 28.0%, exports from travel services recorded the highest share in 2018, increasing from 26.1% in 2010.

The performance of export and import trade in goods and services will, directly and indirectly, contribute to the national production output of ASEAN countries that can form each country's national GDP so that the effect of an increase in exports can have an impact on increasing GDP in ASEAN while an increase in imports can actually result in a decrease in GDP in ASEAN, especially for per capita income which is reflected in GDP per capita which can interpret a local purchasing power and demand.

Meanwhile, this study did not significantly affect GDP per capita in ASEAN 6 countries in this study. The result shows that the import shows a negative coefficient with an insignificant probability which is confirmed by a coefficient value of -0.070690 and a probability of 0.5283. This result means that an increase in imports in ASEAN 6 countries can impact a decrease in GDP per capita and vice versa. However, in this study, this effect did not show significant results. In addition, FDI also indicates a positive influence in influencing GDP per capita in ASEAN 6, but it does not have a significant effect. This result is confirmed by a coefficient value of 0.014653 and a probability value greater than alpha 5%, which is 0.3695. So these results confirm that an increase of one unit of foreign capital flows into ASEAN 6 countries can increase GDP per capita by the coefficient value and vice versa. In this study, this influence did not affect significantly.

ASEAN continues to advance its four-pronged agenda in the investment sector, namely liberalization, promotion, facilitation, and protection. A protocol to amend the ASEAN Comprehensive Investment Agreement (ACIA) has been signed, which is expected to contribute to increasing investment cooperation through the incorporation of built-in agenda items in ACIA and the incorporation of WTO Trade-Related Investment Measures-plus Prohibition Performance Requirements obligations into one

agreement. Consistent reforms in ASEAN countries have also supported a better investment environment in the region through more detailed regulations related to sustainable investment, increased investment protection, and increased investment facilitation. In addition, due to increasing concern for sustainability throughout ASEAN, interest in sustainable investment has also increased in the region (ASEAN Integration Report, 2019).

Integrating the concept of sustainability from all aspects of both investment and trade through various regulations that support environmental sustainability can have a significant positive impact on creating inclusive growth and development. This is also a form of appreciation and support for the global agenda to achieve sustainable development to mitigate pollution and environmental degradation, which is currently increasingly happening. In addition, the existence of investment by prioritizing the concept of sustainability will also impact the absorption of more workers by minimizing the use of technology that can pollute the environment. More technology-intensive flows will be diverted to labor-intensive with various considerations and other aspects to reduce excessive energy use as engine fuel and absorb more labor supply.

Other results also show that price increases as reflected by inflation show a negative but insignificant effect on GDP per capita in ASEAN 6. This result is confirmed by a coefficient value of -0.000878 and a probability value greater than alpha 5%, namely 0.7790. When there is an increase in the price of one unit, it will impact the decrease in GDP per capita by the coefficient value and vice versa. A massive price increase will hamper people's purchasing power so that it can reduce aggregate demand. This will result in a decrease in output from production, so it has a significant impact on the downward trend in GDP. This cycle will occur as a domino effect caused by unstable prices.

The phenomenon of the economic and health crisis that occurred in early 2020 had a major impact on the global economic downturn. This condition is indicated by a downward trend in all economic performance resulting from the Great Recession. The declining value of GDP indicates this to a negative number, the decline in the contribution of various sectors to the preparation of GDP in all countries to the flow of remittances which also decreased. Social restrictions decrease demand and reduce human activities in carrying out their socio-economic activities. The economic and domestic activity also experienced a largely downward trend, such as exports and imports, which experienced a decline in performance from 2020 to 2021 in the first quarter. Macroeconomic fundamentals experience increasing uncertainty with the decline in performance in various aspects.

This study is in line with the results of research by Mariska et al. (2021); Romadona et al. (2021); Cazachevici et al. (2020), and Meyer & Shera (2017) that an increase in remittances will have an impact on an increase in GDP per capita which reflects a growth in the economy. Meanwhile, Alkhathlan's (2013) empirical study found contradictory results. His study showed that remittances had a significant negative effect on the economy in Saudi Arabia. However, the same results show that exports in Saudi Arabia increase economic growth in line with the results of this study.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

GDP per capita in ASEAN 6 is significantly affected by remittances and export performance in a positive direction. Meanwhile, imports also showed significant negative results. In addition, FDI also shows the direction of a positive relationship in

affecting GDP per capita in ASEAN 6 but does not significantly influence it. Inflation as a proxy for purchasing power and prices also negatively impacts GDP per capita in ASEAN 6 but does not significantly affect it.

Recommendations

The results of this study can be to serve as a reference in making policies or regulations, especially for the management of remittances and FDI, so that they can contribute significantly to affecting GDP per capita. Especially for remittances which can be managed further to increase access to finance and business capital so that the circulation of money will be longer and have a significant impact in encouraging an increase in GDP per capita. Policies in strengthening protection and guarantees for international migrants are very important, especially during a pandemic, both from the health and economic aspects. Legal international migrants need to be properly nurtured and supervised for the purpose of social protection so that from the health aspect, there is also a need for special guarantees. In addition, from the economic aspect, to maintain income, workers need to be transferred to jobs that still have a relationship with their previous work while still paying attention to aspects of health protocols. For example, each country's embassy in another country can provide other related jobs so that migrants can continue to be productive and earn income even though it is not as optimal as the previous income.

In addition, FDI is also very important to encourage job creation by integrating the concept of sustainability. In terms of international trade, the various existing regulations to integrate trade in the ASEAN region have been well applied but have not been able to have a massive impact in terms of quality and quantity of trade and institutional aspects. Price stability is also a very important instrument to maintain demand so that production output performance remains stable and creates a more conducive economic condition because weakening prices, which are an indicator of an economic downturn, will also have a negative impact on the economy.

REFERENCES

Abduvaliev, M. & Bustillo, R. (2020). Impact of remittances on economic growth and poverty reduction amongst CIS countries. *Post-Communist Economies*. 32(4), 525-546. DOI: 10.1080/14631377.2019.1678094

Acosta, P., Calderón, C., Fajnzylber, P. & Lopez, H. (2008). What is the Impact of International Remittances on Poverty and Inequality in Latin America? *World Development*, 36(1), 89–114. doi: 10.1016/j.worlddev.2007.02.016.

Adenutsi, D. E. (2011). Financial development, international migrant remittances and endogenous growth in Ghana. *Studies in Economics and Finance*, 28(1), 68–89. doi: 10.1108/10867371111110561.

Afriska, A. E., Zulham, T & Dawood, T. C. (2018). Pengaruh Tenaga Kerja Indonesia Di Luar Negeri Dan Remitansi Terhadap PDB Per Kapita di Indonesia. *Jurnal Perspektif Ekonomi Darussalam*, 4(2), 231–248. doi: 10.24815/jped.v4i2.12947.

Alkhathlan, K. A. (2013). The nexus between remittance outflows and growth: A study of Saudi Arabia. *Economic Modelling*. 33, 695–700. doi: 10.1016/j.econmod.2013.05.010.

Barajas, A., Chami, R., Fullenkamp, C., Gapen, M. & Montiel, P. (2009). Do Workers' Remittances Promote Economic Growth?. *IMF Working Papers. 09.* doi: 10.5089/9781451873009.001.

Vargas-Silva, C., Jha, S. & Sugiyarto, G.. (2009). Remittances in Asia: Implications for

the Fight against Poverty and the Pursuit of Economic Growth. *ADB Economics Working Paper Series No. 182*

Cazachevici, A., Havranek, T., & Horvath, R. (2020). Remittances and economic growth: A meta-analysis. *World Development* 134 (2020) 105021

Chami, R., Barajas, A., Cosimano, T., Fullenkamp, C., Gapen, M. & Montiel, P. (2008). *The macroeconomic Consequences of Remittances*. Washington DC: International Monetary Fund. doi: 10.1016/j.jinteco.2018.01.010.

Hassan, G. M. & Shakur, S. (2017). Nonlinear effects of remittances on per capita GDP growth in Bangladesh. *Economies*, 5(25), 1–11. doi: 10.3390/economies5030025.

Hassan, G. M., Chowdhury, M. & Bhuyan, M. (2016). Growth Effects of Remittances in Bangladesh: Is there a U-shaped Relationship?. *International Migration*, 54(5), pp. 105–121. doi: 10.1111/imig.12242.

Jebran, K., Shalmani, A., Iqbal, A. & Ullah, I. (2016). Effects of remittances on per capita economic growth of Pakistan. *Pakistan Business Review*, 18(1), 1–18.

Jongwanich, J. (2007). *Workers' Remittances, Economic Growth and Poverty in Developing Asia and the Pacific Countries*. 07. Available at: http://www.unescap.org/sites/default/files/wp-07-01.pdf.

Lee, E.S. (1966). A Theory of Migration. *Demography*, 3(1), 47-57. DOI: https://doi.org/10.2307/2060063

Lloyd, P. & Smith, P. (2004). *Global Economic Challenges to ASEAN Integration and Competitiveness : A Prospective Look*. Final Report. REPSF Project 03/006a. The ASEAN Secretariat

Manzoor, R. (2018). *Impact of Remittances on growth and poverty alleviation in Pakistan*.[Thesis]. Indus University

Mariska, M., Hamzah, L.M & Ratih, A. (2021). The Effect of Remittance, Consumption, and FDI on Economic Growth in ASEAN Countries. *Eko-Regional*, 16(2), 136-143

Meyer, D. & Shera, A. (2017). The impact of remittances on economic growth: An econometric model. *EconomiA*. 18(2), 147–155. doi: 10.1016/j.econ.2016.06.001.

Noveria, M. (2017). Migrasi Berulang Tenaga Kerja Migran Internasional: Kasus Pekerja Migran Asal Desa Sukorejo Wetan, Kabupaten Tulungagung. *Jurnal Kependudukan Indonesia*, 12(1), 25-. doi: 10.14203/jki.v12i1.255.

Romadona, F.B., Wibowo, V & Rahman, H. (2021). Analysis of The Effect of Remittance on Economic Growth in Developing Countries East Asia and Pacific Region. *MediaTrend,* 17(2), 162-173

Sari, P. A. (2019). Pengaruh Remitansi Terhadap Perbedaan Kesejahteraan Rumah Tangga Di Indonesia Dengan Metode Propensity Score Matching. *Jurnal Ekonomi Pembangunan*, 8(2), 171–194

The ASEAN Secretariat (2019). *ASEAN Services Integration Report 2019.* The ASEAN Secretariat