

The Effect of The Total Value of Exports, Imports and Economic Growth on Exchange Rate with State Governance as A Variable Moderating in Southeast Asia 2009-2019

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ABSTRACT

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The purpose of this study is to determine the effect of independent variables such as exports, imports, and economic growth on the dependent variable in the form of the exchange rate by using the variable of state governance as a moderating variable. The data used is panel data. The population of this study is a Southeast Asian country. The sampling technique in this study was taken using purposive sampling. Data analysis in this study used the Chow, Housman, and MRA test analysis methods using Stata13 software. The results are based on the best Random Effect Model (REM) model, that is, there is no significant effect of exports and imports on the exchange rate. Meanwhile, economic growth, and state governments have a significant effect on the exchange rate based. However, based on the MRA test, the variable of state governance strengthens the relationship between these three variables (exports, imports, and economic growth) on the exchange rate.

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Introduction

An open economic system has been applied in almost every country in the world. This is inseparable from the influence of industrial globalization, which requires every country to be involved in international trade. International trade is a medium for cooperation between domestic and foreign economies. The existence of international trade cooperation is due to the inability of a country to meet the needs of its own country, finally relations between countries in the form of international trade are needed (Sedyaningrum, et al., 2016).

International trade is one type of business activity that is experiencing rapid development. This situation can be seen from the growing flow of circulation of goods, services, capital and labor between countries. These activities can occur because of international relations in the form of export, import, investment, service trading, licensing and franchising activities (license and franchise), intellectual property rights and technology transfer, which will ultimately have an impact on various economic activities, such as banking, insurance, taxation, and others (Hasyim, 2020).

The economic activity of a country certainly has a relationship with per capita income in order to see the purchasing power of its people as the driving force of the economy. The per capita income of a country can be used as a barometer of a country's economic development. In the complete business dictionary described by Pass and Lowes in Sedyaningrum (2016) that purchasing power is assessed as the ability to pay to obtain the goods and services needed. With the income obtained, per capita income can be used as a barometer or a measure of the increase and decrease in the ability to pay goods and services. In addition, Sukirno (2010) describes that data on the per capita income of a country's population can be used as a reference in seeing how much people have money to use or spend. In a macroeconomic study, per capita income will encourage people to have purchasing power which is not only limited to domestic trade but will also affect international trade activities both exports and imports which in turn will affect the exchange rate of the domestic currency against foreign currencies such as foreign currencies. United States (US) dollar. America is one of the countries that is said to dominate the world market, so it is not surprising that the US Dollar is used as an international currency. In this research, moderating in southeast Asia in 2009-2019 (Adrian, 2014).

Exports are the total number of goods and services sold by a country to other countries, including insurance goods and services in a given year (Adrian, 2014). Export activities will affect the exchange rate of the exporting country which causes the exchange rate of its currency to decrease or weaken and vice versa. The issue of currency exchange rates is considered very urgent because it is directly involved with relations between countries. The increase in total exports causes the demand for domestic currency (importing countries) to increase so that the exchange rate of the currency increases or strengthens as well (Sedyaningrum, et al., 2016).

Import is an activity of entering goods into the customs area, whether carried out by individuals or legal entities carried by means of equipment that cross national borders and to which they are required to fulfill customs obligations such as payment of import duties and taxes in the context of outstanding imports (Purwinto, 2015).

Import conditions are the opposite of the export position. When imports increase, the demand for the importing country's currency increases or strengthens so that the domestic currency (importer) weakens, although theoretically, this is different from Ribka BR Silitonga's research (2017) which states that exports and imports have a significant negative effect on the rupiah exchange rate.

Exports and imports in one country occur due to the value of benefits derived from international trade transactions. International trade contributes to expanding the consumption potential of each country that provides impact to business continuity in continuing development and increasing the role of sectors that have a comparative advantage due to the efficiency contained in production factors in a country

Wulandari & Lubis (2019). Export and import activities of a country are certainly influenced by the economic growth of each country which in turn will affect exchange rates throughout the world. In classical economic theory, the process of economic growth, in the long run, occurs systematically. So that the essence of the process of economic growth is easy to understand, economic growth is divided into two main aspects, namely growth output total and neoclassical growth. both view and assess differently, namely in terms of offerings (Serly, 2018).

Modern economic growth theories such as the Classical, Neoclassical and Keynesian theories do not have significant similarities, there are only a few or one of them. In international trade, there are few similarities between each theory. The Classics and Neoclassicals argued against international trade with several perspectives or liberal scientific theories, so according to the Classical states that the macro economy will grow and develop if the economy is left to the market mechanism. Classical states that the macro economy will grow and develop if the economy is left to the market mechanism. In line with that, according to the Neoclassical perspective, naturally, the economy leads to equilibrium and full employment when the government plays a minimal role. The similarities between Neoclassical and Keynesian views are that with technological progress, economic growth will be triggered (Serly, 2018).

Meanwhile, Prasetyo (2011) says that economic growth is defined by an increase in the physical production capacity of goods and services within a certain period of time. The amount of domestic production will decrease if only the economic situation in a country is sluggish which results in the demand for some products domestic goods decline abroad so that the demand for domestic currency decreases which in turn results in a weakening of the exchange rate.

On the other hand, if the economic situation is in an advanced state, but this progress is followed by the widespread demand for foreign goods, which is increasing compared to the demand for domestic goods, the demand for domestic (domestic) money will decrease which in turn will lead to a decline in the demand for foreign goods. exchange rate depreciation. In order to avoid a weakening of the exchange rate, the government must be shrewd and manage the governance of the country's economy so that unwanted things do not happen. The development of a country will run smoothly with good state governance (Kim, et al., 2018), especially in the fields of finance, investment, exports, and imports, especially for potential sectors that have the potential develop naturally requires good governance from the government both regarding policies, rules of the game, regulations to all things related to it that are sustainable. Based on the research of Omoke & Opuala-Charles (2021) and Raghutla (2020) where the results in these studies describe that state governance has a significant positive influence and is able to become a factor in the smooth flow of traffic. exports and imports within a country. Effective and quality state governance will have an impact on the ability to contribute dividends from the openness of international trade which will ultimately boost the economic growth of each country.

In this research, the researcher tries to combine two important issues in activities towards economic growth. The first issue is based on the hypothesis that exports, imports, and economic growth have a positive role in the exchange rate. The second issue aims to describe an exchange rate model that is supported by the level of state governance as a trigger for exports, imports and economic growth. The title of this study was chosen with the reason to examine how much influence state governance interventions have on exports, imports, and economic growth in ASEAN countries.

Theory and Literature Review

International Trade Theory

The phenomenon of globalization has made interactions and relations between countries in various parts of the world more intensive. The intensity and frequency of relations are certainly greatly influenced by the interests and needs between countries to complement the shortcomings and needs of one country with another. The key to meeting the needs of each country lies in how activity trading international which applied. International trade identical to the currency agreed to be used in trade transactions, namely the US dollar (United States). The use of the US dollar causes the exchange rate of the rupiah against the dollar to fluctuate from time to time. This can pose a risk of exchange rate fluctuations due to the fluctuating exchange rate itself (Muzaky, 2015).

Fluctuating exchange rates clearly have a direct influence on pricing and services in the country. The occurrence of volatility or fluctuations in currency exchange rates also results in the appreciation and depreciation of the currency (Wilya, 2014). On the other hand, exchange rates are affected by how much supply-demand (supply-demand) against that currency. If there is an increase in the demand for currency, followed by a decrease in the supply of currency, then what happens is an increase or an increase in the exchange rate. And vice versa, when an increase in the supply of currency is followed by a decrease in demand for currency, it is clear that what is happening is a weakening of the currency. Please note that exchange rates in Indonesia (Rupiah), Malaysia (Ringgit), Singapore (Singapore Dollar), Philippines (Peso), Brunei Darussalam (Brunei Dollar), and Thailand (Bath) are in a weak position due to high supply and low demand for these currencies. The whereas openness economy have impact on the balance of payments in a country which is closely related to trade flows, and capital flows. Trade flows can be influenced by exchange rate policies in order to maintain export competitiveness and suppress imports in order to reduce the current account deficit. The effect of exchange rate policy on the economy can be monitored in two ways, namely supply and demand (Mankiw, 2008).

Institutional Theory

Scot in Hessels and Terjesen (2010) describes that institutions are social structures that meet the highest resilience and include cognitive, normative, and regulatory cultures that are full of change. Of course, these elements together influence activities and resources to create an influence or contribution to balance and make social life more meaningful. In order to apply this balance or stability, institutions should pay attention to the elements cultural as benefits, norms, rules, roles and material resources. This is able to create organizational commitment in providing stability through various policies and programs that have been prepared.

Scot in Villadsen (2011) also describes that this theory can be used to explain the role and decision making in organizations that the beliefs and rules used by organizations often cause or influence organizational processes, structures and roles. An example of an organization that focuses on public services, it is clear that decision-making is influenced by rules and beliefs that are usually implemented by the central, regional and community governments.

Good Governance

United Nations Development Program (UNDP) (1999) defines the government as the implementing medium for the political economy, and the administrative authority to regulate state affairs at all levels. Administration, economics and politics are three important points in government. The administrative sector covers matters relating to policy implementation. Economics includes the decision-making process in the implementation of a country's economic activities and the interaction between economic actors. While the field of Politics includes the process of policy formulation.

Mankiw (2006) uses the term components of GDP, namely GDP shown as Y divided into four components, namely consumption, investment, state spending and exports and imports. This calculation of national income has the main macro measure of the condition of a country. If GDP is calculated on average divided by the total population of a country, it is called GDP per capita (Rudiger Dornbusch, 2011).

Export

Everything related to the sale or delivery of goods from within the country to outside the country can be said to be an export. Murni (2009) argues that every economic activity carried out in the context of marketing or selling products domestically to existing markets abroad. Sukirno (2010) also argues that the advantages of export activities are being able to expand employment, expand markets, and increase foreign exchange.

Export According to Customs and Excise (2013) Export is the activity of removing goods from the customs area in accordance with customs laws. The basis of the current implementation of export activities is Law no. 10 of 1995 which has been amended to become Law no. 17 of 2006 concerning Customs, Regulation of the Minister of Finance No. 145 / PMK.04/2007 regarding Customs Provisions in the Export Sector, Regulation of the Director General of Customs and Excise No. P-40/BC/2008 jo. P-06/BC/2009 jo. P 30/Bc/2009 jo. P-27/BC/2008 concerning Customs Procedures in the Export Sector. Regulation of the Director General of Customs and Excise Number P-41/BC/2008 concerning Notifications Export Customs. In conclusion, exports are any goods that come out of one country to another, both legally and illegally (Fauziah, 2018).

Import

The definition of import can be said to be the opposite of the definition of export, where everything related to the purchase or importation of goods originating from abroad enters the country. Murni (2009) argues that imports are every economic activity carried out in order to buy foreign products to the domestic market. Import can be defined as the activity

of bringing goods and services from abroad into the country through a cooperation agreement between 2 or more countries legally or illegally. Not only that, imports can also be referred to as trade by entering goods from abroad into the country and fulfilling the applicable requirements (Hutabarat, 1996:403) (Benny et al., 2013).

Economic Growth

Economic growth describes or measures the development of an economy. In the actual pace of the economy, economic growth means the fiscal development of the production of industrial goods and services prevailing in a country, such as the increase and number of productions of industrial goods, the development of increase total school, an increase in the production of the service sector and an increase in the production of capital goods (Sukirno, 2004).

Exchange Rate

Mark swap reflect balance of supply and demand against the domestic currency and foreign currency USD. For example, if there is a decline in the rupiah exchange rate, reflect the minimum or decline community request international currency against a country's currency, especially ASEAN countries, due to the declining role of the national economy or due to the increasing demand for foreign currency USD by the public and its role as an international payment instrument. According to Apriyanthi, et al (2020) the exchange rate is the price level of the domestic currency in the currency of another country. When the exchange rate changes, the value of the other country's currency will receive a profit. Because if the exchange rate of another country's currency changes, the attractiveness of owning that currency will increase so that it can reduce savings.

State Governance

Good governance is important because in this governance, individuals are considered happier if people's lives are governed by institutions that are impartial and unbiased, wise, transparent, accountable, and have a sincere bureaucracy, as a result some developing countries will become much better. This implies that by increasing the quality of government, it will also lead to an increase in the rate of economic growth.

The Urgency of Governance in Islam

Government is not always synonymous with the state, because government is dynamic, while the state is static. However, it cannot be denied that the two are interrelated and

cannot be separated like two currencies. And the task of the government is to take care of state problems.

The government that was practiced by the Prophet Muhammad, the Prophet Muhammad SAW and Khulafau Rasidin, is certainly used as a basis and example in organizing or managing the state, where the function of government in Islam is to enforce the commands of Allah SWT. Upholding Islam, the Al-Quran has also explained to the creatures in the world or to the Islamic government to destroy shirk and strengthen Islam. Establishing prayers and paying zakat, enjoining ma'ruf and forbidding the munkar, taking care of some public interests within the limits of Allah's laws Hasjmy (1984). The evidence is in Wibowo's research (2020), which illustrates the many matches between the governance indices published by the World Bank and Islamic teachings.

Research by Butarbutar and Widanta (2021) which aims to determine the effect of inflation, GDP and exchange rates on the value of Indonesian textile exports and textile products to Japan. The study was conducted in Indonesia with a total of 30 secondary data observations. Based on the analysis, it was found that Japanese inflation, Japanese GDP and the exchange rate partially Japanese inflation and the exchange rate had a positive and significant effect on the export value of Indonesian textiles and textile products to Japan. Meanwhile, Japan's GDP partially has a positive but not significant effect on the export value of Indonesian textiles and textile products to Japan.

In the research of Aulia *et al* (2017) examines the effect of 3 macroeconomic variables on the exchange rate. The study used secondary data with a period of 10 years (2006-2015). The results of the regression analysis show that the inflation variable has a positive effect on the rupiah exchange rate. Meanwhile, the interest rate and economic growth variables have a negative effect on the rupiah exchange rate.

Research conducted by Dzakiyah, Puspitaningtyas, and Puspita (2018), analyzes the factors that affect the volatility of the rupiah exchange rate. The results of the study partially show that the inflation rate has a significant effect on the rupiah exchange rate, while the export value has no significant effect on the rupiah exchange rate. Simultaneously shows that the inflation rate and the value of exports affect the rupiah exchange rate.

Ginting (2017), conducted a study with the aim of analyzing the development of exports and Indonesia's economic growth from the first quarter of 2001 to the fourth quarter of 2015. The study uses a descriptive analysis of the Error Correction Model (ECM) method in analyzing the long-term and short-term effects. ECM regression results show that exports have a significant positive effect on economic growth.

The research of Yildirim and Arifli (2021) aims to investigate the macroeconomic effects of an adverse oil price shock on the small oil exporting economy - the Azerbaijani economy. The results show that the Azerbaijani economy is negatively affected by the decline in oil prices.

In the research of Babubudjnauth and Seetanah (2020), which aims to examine the effect of real exchange rate movements on the growth of gross domestic product in the manufacturing and service sectors in Mauritius. In the growth model the results show that real currency depreciation is observed to be contracting in the short term while expansionary in the long term. On the other hand, depreciation of the real domestic currency has an expansionary effect on manufacturing output growth in the short run while lowering manufacturing output in the long run.

Conceptual framework

In simple terms, the conceptual framework in this study is described as follows

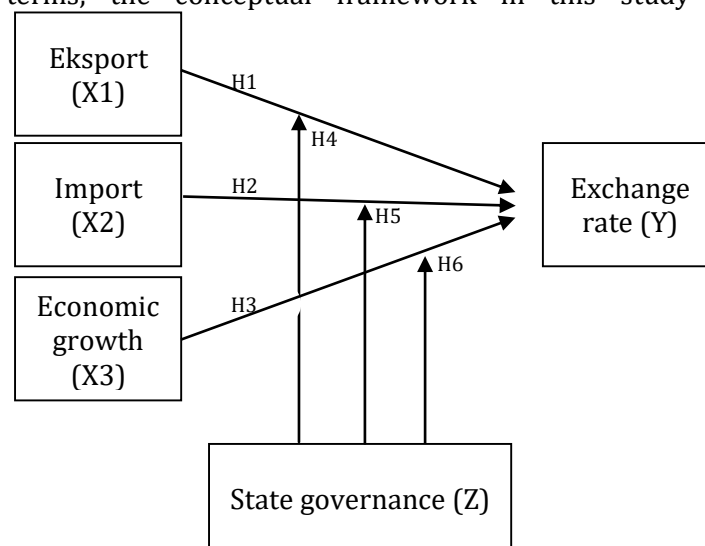


Figure 1. Conceptual Framework

Hypothesis

Based on the conceptual framework that is theoretical and based on empirical studies conducted related to this research, the following hypotheses in this study:

- H1: Exports have a positive effect on the Exchange Rate
- H2: Imports have a positive effect on the Exchange Rate
- H3: Economic Growth has an effect positive on the Exchange Rate
- H4: Moderate State Governance Effect of Exports on Exchange Rates
- H5: Moderate State Governance Effect of Imports on Exchange Rates
- H6: Moderate State Governance Effect of Economic Growth on Exchange Rate.

Method

This study uses a quantitative approach. data used is panel data which is a combination of cross section and data time series that is consisting of 6 Southeast Asian countries in the 2009-2019 period, which was obtained from the official website of Indonesian Bank (IB), the Central Statistics Agency (CSA), and World Bank. The population of this study is a Southeast Asian country. The sampling technique in this study used purposive sampling with the criteria of countries that have complete data on exports, imports, economic growth, exchange rates, and state governance data. So, there are 6 countries (Brunei Darussalam, Indonesia, Malaysia, Singapore, Philippines, and Thailand) with stata13 software and a total of 66 data in this study.

Data Analysis Technique

Statistical test using panel data estimation method. The regression model can be formulated in the following equation:

$$Y_{it} = a + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \dots + e_{it} \quad (1)$$

Description:

Y_{it} (Exchange rate), X_1 (Export), X_2 (Import), X_3 (Economic growth), i (The type of company) and t (Time).

If each unit cross section has data time series, then the model is called a balanced data panel regression model (balance panel), whereas if the number of observations time series from unit cross section are not equal, it is called unbalanced panel data regression. Combined data time series and cross section is panel data. The advantages are obtained when using panel data. First, panel data is able to provide more data. Second, panel data can overcome problems that arise when there is omission of variables (committed variable).

Using panel data, we generate different intercept and slope coefficients for each object and time period. There are several methods that can be used to estimate the panel data regression model, namely the approach Common Effects, Fixed Effects, and Random Effects (Widarjono, 2013). Tests will be carried out using the Stata software. To choose the best model, it can be done with three tests, namely Test chow, Test Hausman, and Test LM.

Best Model Selection

According to Widarjono (2013) in testing the best model specifications, there are several methods, namely:

Chow Test

Specification testing is used to determine which panel data regression estimation model is best used. The Chow test was carried out to test whether the research model used a common effect or fixed-effects model.

H₀: common effect as the selected model

H₁: fixed effect as the chosen model

In this test, the probability value in the cross-section chi-square compared to the level of significance. The significant level used in the study was 5% (0.05). Criteria for drawing conclusions if the probability value is greater than, H₀ accepted which means common effect the chosen. Otherwise, the selected model is a fixed effect.

Hausman test

Hausman test is a test to determine the more appropriate regression model between fixed effects and random effects. The Hausman test hypothesis can be written as follows:

H₀: random effects as the selected model

H₁: fixed effect as the chosen model

Model selection is done by looking at the value in the section random cross-section compared to the value of the significant level (α) of 0.05. The criteria for drawing conclusions are if the probability value is greater than, H₀ accepted which means random-effects model the chosen. However, if it is the other way around, then H₀ is not accepted. If there is no significant difference in the Hausman test results ($p > 0.05$), this indicates that the random estimator is not biased, so it is recommended to prioritize fixed effects over common effects.

Testing Lagrange Multiplier (LM)

The Breusch-Food Lagrange Multiplier (LM) test aims to choose the best between random effects or common effects. Hypothesis in test Breusch-pagan Lagrange multiplier are as follows:

H₀: random effects as the selected model

H₁: common effect as the chosen model

Model selection is done by looking at the probability value Breusch-Pagan and significant level (α) 0.05. The criteria for drawing conclusions are if the probability value is greater than then H₀ rejected which means common effect the chosen. Otherwise, the selected model is random effects

Moderated regression analysis (MRA) Test

Moderated regression analysis (MRA) is an interaction test analysis used to get an idea of the impact of exports, imports, and economic growth on the exchange rate and to find out whether the moderating variable can affect the relationship between the dependent and independent variables. The advantage of this test is that it provides results for the moderated variable whether it strengthens or weakens the influence of the dependent variable on the independent variable. The MRA equation model can be denoted as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_4 Z + e$$

$$Y = \beta_0 + \beta_1 X_1 + \beta_4 Z + \beta_5 X_1 * Z + e$$

$$Y = \beta_0 + \beta_2 X_2 + \beta_4 Z + e$$

$$Y = \beta_0 + \beta_2 X_2 + \beta_4 Z + \beta_6 X_2 * Z + e$$

$$Y = \beta_0 + \beta_3 X_3 + \beta_4 Z + e$$

$$Y = \beta_0 + \beta_3 X_3 + \beta_4 Z + \beta_7 X_3 * Z + e$$

Where: Y1 = Exchange Rate, X1= Eksport, X2= Import, X3= Economic Growth, Z= State Governance, X1*Z= Interaction Variable 1, X2*Z = Interaction Variable 2, X3*Z = Interaction Variable 3 and e = (Error term) Confounding Variable

Discussion and Result

Descriptive Analysis

Based on Table 1, the level of mean the exchange rate (Y) of Countries in Southeast Asia in 2009-2019 was 5556,261 with a standard deviation of 4695,492. The minimum amount of the exchange rate is 201.48 and the maximum is 14481. Exports (X1) have an average of 173225 with a standard deviation of 122532. The minimum number of exports is 4875.07 and the maximum is 411742.3. The Import Average (X2) is 162812.9 with a standard deviation of 109088.1. The minimum import amount is 2395.05 and the maximum is 379722.9. Economic growth (X3) has an average rate of 4,073 with a standard deviation of 2,824. The minimum amount of economic growth is -2.5 and the maximum is 12. Then finally, the State Governance (Z) has an average of 13831.17 with a standard deviation of 15365.09. The minimum number of State Governance is 208.95 and the maximum is 55248.81.

Table 1. Descriptive Analysis

Variable	Obs	Mean	Std. Dev.	Min	Max
Y	66	5556.261	4695.492	201.48	14481
X1	66	173225	122532	4875.07	411743.3
X2	66	162812.9	109088.1	2395.05	379722.9
X3	66	4.073182	2.824969	-2.5	12
Z	66	13831.17	15365.09	2008.95	55248.81

Source: Stata 13 Output (Data processed)

Estimation Results

The estimation results of the selected model to test the hypothesis shows in Table 2. The estimation result was that Random Effect Model was selected.

Table 2. Estimated Results Model CEM, FEM, and REM

Test spesifikasi model	Probability	Description
Chow Test	0,0000 *	Models that selected (FEM)
Hausman Test	0,9943*	Models that selected (REM)
LM Test	0,0000*	Models that selected (REM)

Source: Stata 13 Output (Data processed)

Based on the results of processing or estimation of the Random Effect Model Table 3 can be seen that the probability of Export (X1) of $0.470 > 0.05$, the probability of the imported variable (X2) of $0.186 > 0.05$, X3 (economic growth) has a probability of $0.049 < 0.05$ and Z (state governance) with a probability value of $0.004 < 0.05$, then the X1 and X2 variables do not have a significant positive effect on the exchange rate variable. While the X3 and Z variables have a significant positive effect on the exchange rate variable.

Table 3. Random effect model (REM)

Variable	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
X1	-0.0105841	0.0146474	-0.72	0.470	-0.0392924	0.0181243
X2	0.0188572	0.0142572	1.32	0.186	-0.0090865	0.0468009
X3	-154.9444	78.86058	-1.96	0.049	-309.5083	-0.3805004
Z	0.115953	0.0397502	2.92	0.004	0.038044	0.1938619
_cons	3346.834	1438.968	2.33	0.020	526.5081	6167.159
sigma_u	1884.6582					
sigma_e	1158.4877					
rho	0	(Fraction of variance due to u_i)				
	.7257692					
Number of obs	66					
Number of groups	6					
Wald chi2(4)	15.45					
Prob > chi2	0.0038					
R ² within	0.1466					
R ² between						
	0.4432					
R ² overall						
	0.4064					

Source: Stata 13 Output (Data processed)

Based on the results output Table 4 shows the MRA test, and it can be concluded that all variables have a significant influence on the exchange rate in a positive direction. This sign means that the variable Z strengthens the effect of X1, X2 X3 on Y significantly. Then the variable Z (state governance) in each interaction is a Quasi Moderator (pseudo moderator).

Table 4. MRA Test

No	Variable	Estimation	Model	Prob	Result	Type Variable
1	X1	X1,Z Y	$Y = \beta_0 + \beta_1 X_1 + \beta_4 Z + e$	0,000*	a significant effect on Y	Z= Quasi Moderator (Pseudomoderator)
		Z, X1*, Y	$Y = \beta_0 + \beta_1 X_1 + \beta_4 Z + \beta_5 X_1 * Z + e$	0,000*	a significant effect on Y	
2	X2	X2,Z Y	$Y = \beta_0 + \beta_2 X_2 + \beta_4 Z + e$	0,000*	a significant effect on Y	Z= Quasi Moderator (Pseudomoderator)
		Z, X2*, Y	$Y = \beta_0 + \beta_2 X_2 + \beta_4 Z + \beta_6 X_2 * Z + e$	0,000*	a significant effect on Y	
3	X3	X3,Z Y	$Y = \beta_0 + \beta_3 X_3 + \beta_4 Z + e$	0,000*	a significant effect on Y	Z= Quasi Moderator (Pseudomoderator)
		Z, X2*, Y	$Y = \beta_0 + \beta_3 X_3 + \beta_4 Z + \beta_7 X_3 * Z + e$	0.018	a significant effect on Y	

*sig 0.05 processed results

Result

Hypothesis test 1: Effect of export value on exchange rate

The first hypothesis (H1) states that based on the results of data processing, the export significance value of $0.470 > 0.05$ means that the null hypothesis is accepted while the alternative hypothesis is rejected. This shows that the export variable does not have a significant effect on the exchange rate in Southeast Asia in 2009-2019. This study is in line with research conducted by Dzakiyah and Yeni (2018) where exports do not have a significant effect on the exchange rate.

This is possible because the export value did not fluctuate during the study period. The value of exports tends to decline in line with the weakening of the rupiah (exchange rate). This incident is in line with Mankiw's theory where the balance of payments does not only include trade in goods and services, but also transactions on government and company assets. Thus, the value of exports can come into play when this happens surplus balance of payments. For governments and companies (businesses), exports are the income earned from their international trade. For the company, the number of exports obtained is part of the company's assets. This means that the company will get profits and income from how much export activity is, because the company is the main actor in producing goods and services. Therefore, it is not impossible if these activities can influence the decision to convert the export value to the domestic exchange rate or to fix it in foreign currency.

Hypothesis test 2: Effect of import value on the exchange rate

The second hypothesis (H2) states that based on the results of data processing the value of import significance of $0.186 > 0.05$, which means rejecting the alternative hypothesis and accepting the null hypothesis. This shows that imports do not have a significant effect on exchange rates in Southeast Asia from 2009-to 2019. This study is in accordance with the research of BR Silitonga (2017) that the export and import variables have a negative and significant effect on the rupiah exchange rate.

Imports and exports in a country are carried out for the benefit of foreign trade. Trade is not only to increase a country's consumption capacity but also to influence development efforts and help strengthen the role of sectors that have a comparative advantage through the efficiency of production factors (Wulandari & Lubis, 2019). This is possible because the value of imports did not fluctuate during the study period.

Import is something activity import goods into the customs area by individuals or legal entities carried by means of equipment by means of cross-border and must pay import duties such as import taxes and payment of taxes related to imports owed (Purwinto, 2015). Therefore, the import condition is the opposite of the export position, where when imports import country can increase, and the domestic currency (importer) weakens.

Hypothesis test 3: The effect of economic growth on the exchange rate

Based on the results output data processing obtained a significant value of economic growth of $0.049 < 0.05$, meaning H_a is accepted while H_o is rejected. This means that the variable economic growth has a significant influence on the exchange rate in Southeast Asia in 2009-2019. This research is in line with the research of Bato, et al (2017), which states that economic growth has significant negative impact on the exchange rate.

This is in line with Salvatore's theory that the magnitude of real output growth in a country has a significant impact on the amount of domestic money needed in the country, it makes the money supply more valuable and can cause an increase in the domestic currency.

The amount of demand and supply of domestic funds is strongly influenced by changes in economic growth because an increase in economic growth reflects an increase in national income and an increase in economic activity in the sector of International trade causing enhancement requests to exchange rates. That is, due to economic growth in various countries, causing active economic activity as well, if the economy is active and grows, of course, the demand for currency values will also increase. Meanwhile, economic growth is also inseparable from interactions with other countries that require each country to use the

currency of the country concerned or the country that is invited to cooperate. Finally, from the existence of these economic flow activities, an absolute exchange rate must occur.

Hypothesis test 4: The effect of state governance in moderating exports on the exchange rate

Based on the results test statistics shows that state governance is able to moderate the relationship between exports and the exchange rate, where the significance value is $0.004 < 0.05$. In addition, based on the results of the MRA test where the probability of the X1Z variable against Y is $0.000 < 0.05$, which means that the alternative hypothesis is accepted while the null hypothesis is rejected. In other words, the existence of state governance has an interaction with export variables and exchange rates. An increase in export performance has an effect on the resilience of a country's economy, especially from foreign exchange reserves. If a country's foreign exchange reserves are large, it will not be affected by exchange rate fluctuations due to global economic dynamics (Sukirno, 2010).

The development of exchange rates has a great effect on a country's economy and capital flows. Therefore, good national governance is used to maintain exchange rate stability to support the domestic economy. Good state governance is used to maintain exchange rate stability to support the domestic economy (Beacukai.go.id, 2013).

Hypothesis test 5: The effect of state governance in moderating imports on the exchange rate

Based on the results of statistical tests, it shows that state governance is able to moderate the relationship between imports and the exchange rate, with a significance value of $0.004 < 0.05$. In addition, based on the results of the MRA test where the probability of the X1Z variable against Y is $0.000 < 0.05$, it means that H_a is accepted while H_o is rejected. In other words, the existence of state governance has an interaction with the variables of imports and exchange rates. State governance can moderate the variable of trade openness on economic growth. These findings are in line with research conducted by Omoke & Opuala-Charles (2021) and Raghutla (2020).

According to his findings, state governance has a significant positive interaction and is a factor in facilitating domestic import and export routes. Quality state governance makes it possible to pay dividends from trade openness to encourage the country's economic growth while stabilizing the exchange rate.

As it is known that good governance is important because, in this governance, individuals are considered happier if people's lives are regulated by institutions that are impartial and unbiased, wise, transparent, accountable, and have bureaucracy. Sincerely, as

a result, some developing countries will be much better off. This implies that increasing the quality of government, it will also lead to an increase in the rate of economic growth.

International trade policy is all state actions, either directly or indirectly, to influence the structure, direction, composition, and form of foreign trade. One of the policies carried out by the government is to provide convenience for imports, such as setting tariffs. A tariff is the imposition of goods that pass through the customs area. With the application of import duties on goods from abroad, the aim is to protect domestic industries so that state revenues are obtained. An open international trade policy is considered to make it easier for a country to meet its domestic needs. This matter implies that increasing the quality of government, it will also lead to an increase in the rate of economic growth.

Call it an agreement Common Effective Preferential Tariff for ASEAN Free Trade Agreement (CEFTA-AFTA) which was agreed by the ASEAN Economic Ministers in August 2007, where on 27 February 2009 to be precise in Thailand with the aim of perfecting the ASEAN agreement in the trade in goods comprehensively, it was later called ASEAN Trade in Goods Agreement (ATIGA) or the ASEAN goods agreement. ATIGA is used as a comprehensive legal instrument for trade in goods. In 2020, the benefits of the agreement are minimizing time, transaction costs, and production by 10%. Finally, 40% of the total Intra ASEAN trade target is achieved because it cuts down barriers in the information and trade disclosure sector (Ditjenppi.kemendag.go.id, 2021).

Hypothesis test 6: The effect of state governance in moderating economic growth on the exchange rate

Based on the results of statistical tests conducted, it shows that state governance is able to moderate the relationship between economic growth and the exchange rate, with a significance of $0.004 < 0.05$. In addition, based on the results of the MRA test where the probability of the X1Z variable against Y is $0.018 < 0.05$, which means H_a is accepted while H_o is rejected. In other words, the existence of state governance has an interaction with export variables and exchange rates.

The development of a country will run smoothly with good state governance (Kim, et al., 2018) especially in the financial sector, investment sector, and import or export issues. When a sector that wants to develop in an area really needs government action, such as rules, regulations, and other sustainable measures.

Prasetyo (2011) says economic growth is an increase in the physical capacity of goods and services over a certain period of time. The amount of domestic production will decrease if the economic situation in a country is sluggish and eventually the demand for domestic

goods will decline abroad, then the demand for the domestic currency will decrease and eventually there will be a weakening of the exchange rate. On the other hand, if the economic situation is in an advanced state, but this progress is followed by the widespread demand for foreign goods, which is increasing compared to the demand for domestic goods, this will cause the demand for domestic or domestic money to decline and eventually weaken the exchange rate. will occur.

In another study, it was related to the variable of state governance that could moderate the remittance variable to the variable of economic growth. This study is in line with research by Saad & Ayoub (2019) and Bayar (2016) which state that state governance has a positive interaction significantly with remittances related to economic growth.

This finding indicates that state governance has a significant positive interaction on remittances in their impact on economic growth. As a result, it can increase state income and the financial sector, reduce unemployment, and stabilize the exchange rate.

Conclusions

Based on results analysis and the discussion that has been described in the previous chapter, this research produces the following conclusions: Exports and imports have no significant positive effect on the exchange rates of Southeast Asian countries 2009-2019. While economic growth has a significant positive effect on the exchange rates of Southeast Asian countries 2009-2019. State governance can moderate the influence of exports, imports, and economic growth on the exchange rates of Southeast Asian countries 2009-2019.

Based on conclusion which put forward, the author also proposes to further researchers that the period in the study can be extended so that the results obtained are significant regarding state governance in decreasing or increasing imports and exports as well as economic growth in the exchange rate. Future researchers can also include other factors that affect the exchange rate, or replace moderating variables other than state governance such as government governance, good corporate governance which is considered capable of moderating the factors that affect the amount of the exchange rate.

REFERENCES

- Adrian, S. (2014). *Hukum Ekspor Impor* (1st ed.). Raih Asa Sukses.
- Babubudjnauth, A. (2020). An Empirical Analysis Of The Impacts Of Real Exchange Rate On GDP, Manufacturing Output And Services Sector In Mauritius. *International Journal of Finance & Economics (Ijfe)*., 1869. <https://ideas.repec.org/a/wly/ijfie/v26y2021i2p1657-1669.html>, doi: 10.1002/ijfe.1869
- Bato, Aulia Rahman; Taufiq, Muhammad & Putri, E. R. (2017). *Analisis Pengaruh Variabel*

-
- Makro Ekonomi Terhadap Nilai Tukar Rupiah Tahun 2006-2015* [Universitas Islam Negeri Alauddin Makassar]. <http://repositori-uin-alauddin.ac.id/id/eprint/4981>
- Bayar, Y. (2016). Public governance and economic growth in the transitional economies of the European Union. *Transylvanian Review of Administrative Sciences*, 2016(48), 5–18.
- Beacukai.go.id. (2013). *Bea dan Cukai*. 2013. <https://www.beacukai.go.id/arsip/pab/ekspor.html>. Diakses pada 19 Oktober 2021
- Butarbutar, Ayu Sridepi & Widanta, A. A. B. P. (2021). Analysis of The Effect of Inflation, GDP, and Exchange rate on Indonesian Textiles and Textile Products Exports to Japan. *IJISSET – International Journal of Innovative Science, Engineering & Technology*, 8(3). http://ijiset.com/vol8/v8s3/IJISSET_V8_I03_30.
- Ditjenppi.kemendag.go.id. (2021). *Direktorat Jenderal Perundingan Perdagangan Internasional perdagangan Barang*.
- Dzakiyah, Zumrotudz ; Puspitaningtyas, Zarah & Puspita, Y. (2018). Pengaruh Jumlah Nilai Ekspor dan Tingkat Inflasi Terhadap Kurs Rupiah tahun 2009-2016. *JPSB*, 6(2). doi: <https://doi.org/10.26486/jpsb.v6i2.559>
- Ghozali, I & Ratmono, D. (2013). *Analisis Multivariat dan Ekonometrika Teori, Konsep dan aplikasi dengan Eviews 8 (1)*. Badan Penerbit Universitas Diponegoro.
- Ginting, A. M. (2017). Analysis of the Effect of Exports on Indonesia's Economic Growth. *Trade Research and Development Scientific Bulletin*, 11 (1). doi: <https://doi.org/10.30908/bilp.v11i1.185>
- Hasjmy. (1984). *Di Mana Letaknya Negara Islam*. Bina Ilmu.
- Hasyim, A. I. (2020). *Ekonomi Internasional* (1st ed.). Kencana.
- Hessels, J., & Terjesen, S. (2010). Resorce dependency and institutional theory perspectives on direct and indirect export choices. *Small Business Economics*, 34(2), 203–220. <https://doi.org/10.1007/s11187-008-9156-4>
- Kim, D.-H., Wu, Y.-C., & Lin, S.-C. (2018). Heterogeneity in the effects of government size and governance on economic growth. *Economic Modelling*, 68, 205–216. <https://doi.org/https://doi.org/10.1016/j.econmod.2017.07.014>
- Murni, A. (2009). *Ekonomika Makro*. PT Refika Aditama.
- Omoke, P. C., & Opuala–Charles, S. (2021). Trade openness and economic growth nexus: Exploring the role of institutional quality in Nigeria. *Cogent Economics and Finance*, 9(1). <https://doi.org/10.1080/23322039.2020.1868686>
- Prasetyo, P. E. (2011). *Fundamental Makro Ekonomi*. Beta Offset.
- Programe, U. N. D. (1999). *Decentralization: A sampling of Definitions: Joint UNDP-Government of Germany Evaluation of the UNDP Role in Decentralization and local governance*. <http://web.undp.org/>
- Purwinto, A. & I. (2015). *Ekspor Impor Sistem Harmonis dan pajak dalam kepabean*.
- Raghutla, C. (2020). The effect of trade openness on economic growth: Some empirical evidence from emerging market economies. *Journal of Public Affairs*, 20(3). <https://doi.org/10.1002/pa.2081>
- Saad, W., & Ayoub, H. (2019). Remittances, Governance and Economic Growth: Empirical Evidence from MENA Region. *International Journal of Economics and Finance*, 11(8), 1. <https://doi.org/10.5539/ijef.v11n8p1>
- Sedyaningrum, Miranti, et al. (2016). PENGARUH JUMLAH NILAI EKSPOR, IMPOR DAN PERTUMBUHAN EKONOMI TERHADAP NILAI TUKAR DAN DAYA BELI MASYARAKAT DI INDONESIA Studi Pada Bank Indonesia Periode Tahun 2006:IV-2015:III. *Jurnal Administrasi Bisnis (JAB)*, 34(1), 114–121. administrasibisnis.studentjournal.ub.ac.id
- Serly, L. U. (2018). *ANALISIS TEORI - TEORI PERTUMBUHAN EKONOMI SEBUAH STUDI LITERATUR*. Kampus II Payakumbuh. <http://scholar.unand.ac.id/>
- Silitonga, Ribka BR; Ishak, Z. & M. (2017). Pengaruh ekspor, impor, dan inflasi terhadap nilai tukar rupiah di Indonesia. *Jurnal Ekonomi Pembangunan*, 15(1), 53-59., <https://ejournal.unsri.ac.id/index.php/jep/index>

- Sukirno, S. (2010). *Makro Ekonomi Teori Pengantar* (Edisi Ketu). RajaWali Pers.
- Villadsen, A. . (2011). Structural embeddedness of political top executives as explanation of policy isomorphism. *Journal of Public Administration Research and Theory*, 21(4),
- Widarjono, A. (2013). *Ekonometrika Pengantar dan Aplikasinya*. Ekonisia-FE UII.
- Wulandari, Sari & Lubis, A. S. (2019). Analisis Perkembangan Ekspor Impor Barang Ekonomi di Provinsi Sumatera Utara. *Jurnal Administrasi Bisnis*, 8(1), 33. <https://doi.org/10.14710/jab.v8i1.22403>
- Wibowo, M. G. (2020). Good Public Governance in Islamic Perspective: An Analysis on The Word Governance Indicator in OIC Member Countries. *Ihtifaz: Journal of Islamic Economics, Finance, and Banking*, 3(1), 51–66.
- Yildirim, Zekeriya and Arifli, A. (2021). Oil Price Shocks, Exchange Rate And Macroeconomic Fluctuations In A Small Oil-Exporting Economy. *Energy*, 219. doi: [10.1016/j.energi.2020.119527](https://doi.org/10.1016/j.energi.2020.119527)