

The Effect of Exports on Economic Growth in Indonesia With the Exchange Rate of Rupiah as A Moderated Variables

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ABSTRACT

This study aims to determine the effect of export value on economic growth, and to see whether the exchange rate strengthens or weakens the relationship between exports and economic growth in Indonesia. The data in this study are secondary data taken from the official website of Bank Indonesia and the Central Bureau of Statistics, the data in this study amounted to 36 data where the data is quarterly data from 2010-2018. The results of the analysis show that the export value has a positive and significant effect on the level of economic growth in Indonesia for the period 2010 - 2018, and the rest is influenced by other variables, such as consumption, investment and government spending variables. The results of the analysis of the rupiah exchange rate as a moderating variable in this study strengthen the relationship between exports and Indonesia's economic growth.

Keywords: *Economic Growth, Exchange Rates, Exports, Moderating Variables*

1. INTRODUCTION

Every country has a wealth of natural resources that are different from one another, therefore it requires commodities that are not available from one country to another. With these commodities, trade will occur between one country and another, namely international trade or export-import activities. International trade, export and import, is an activity carried out by an exporter in buying and selling a commodity with a foreigner. Then exporters and importers make payments in foreign currency [1].

International trade cannot be separated from the driving factors of international trade itself. These factors, among others, arise from the urge to meet domestic needs, the availability of natural resources in a country, to benefit from this trade, differences in production factors, the desire for cooperation between countries, and the need for market expansion of a country. Export is an international trade activity that provides an incentive to grow domestic demand, which causes the growth of large factory industries, together with a stable political structure and flexible social institutions. In other words, exports reflect international trade activities, so that a developing country is likely to

achieve economic progress on a par with more developed countries [2].

Exports have a very important role in increasing economic growth. Exports can supply the state budget through income and create an attractive investment climate [3]. In addition, exports also have an important role in developing the domestic product market, this role is to increase competition that encourages a country to increase production and use new technology in its production process.

Economic growth shows the extent to which economic activity will generate additional public income in a certain period. Because basically an economic activity is a process of using production factors to produce output, this process will in turn produce a flow of remuneration for the production factors owned by the community. With economic growth, it is expected that people's income as the owner of production factors will also increase [4].

Economic growth is a target that the economy wants to achieve in the long term, and as much as possible is consistent with economic growth in the short term. Economic growth can explain and simultaneously measure the development achievements of an economy, both within the scope of the country [5]. Reference [6]

states that economic growth is an important indicator to see the success of economic development in a country in addition to other indicators such as unemployment rate, poverty rate, inflation rate.

It is hoped that rapid and stable economic growth will have a positive impact, either directly or indirectly, on other economic variables. In realizing the expected economic growth, the government in each country has several policy components that can be used to achieve the desired economic growth. One of them is through international trade policies. Economic relations between countries are an important factor affecting the economic development of each country [7]. This condition causes competitiveness as one of the determining factors in competition between countries in order to obtain benefits and the more open world economy. The advantages of opening up the world economy can be seen from the state of a country's balance of payments.

Table 1 explains that exports always decline every year, this is due to several factors such as: (1) High import duties imposed by importing countries; (2) trade, protection of export destination countries; (3) depreciation of the Rupiah exchange rate against the US Dollar and (4) an increase in the price of fuel oil (BBM). Another problem is the increase in (BBM) causes the cost of logistics transportation to increase.

Indonesia's economic growth has always experienced a slowdown from 2011 to 2016, especially in 2015. The factors affecting this slowdown in economic growth include economic factors, namely (1) decreasing public purchasing power; and (2) decreased export performance.

Another factor that also affects the slowdown in economic growth is political factors. The increase in economic growth is always supported by high purchasing power of the people, the purchasing power of the community increases due to the Direct Cash Assistance (BLT) program. In addition, the decline in the economic slowdown was due to the decline in export performance in line with the drop in commodity prices, coupled with the increase in fuel prices.

The Rupiah exchange rate weakened in 2011 and had strengthened in 2011, but from 2012 to 2015 the Rupiah always depreciated. In 2016 the Rupiah appreciated by 4.64%. The depreciation of the Rupiah was due to several factors, including (1) deficit in the balance of payments; (2) limited foreign currency liquidity; (3) the continuation of the prolonged crisis in Greece; and (4) strengthen the American market or US economic recovery, where the US raises interest rates so that foreign investors in Indonesia withdraw their funds back. From this description, we would like to study the effect of exports on economic growth, which is moderated by the exchange rate.

Table 1. Exports, economic growth, and exchange rates

Year	Export (%)	Economic Growth (%)	Exchange Rates of Rupiah (%)
2011	2,80	6,49	0,33
2012	0,20	6,23	0,32
2013	0,15	5,56	1,50
2014	0,07	5,01	3,07
2015	-0,04	4,88	4,74
2016	-0,07	5,03	4,64

Source: Central Bureau of Statistics & Bank of Indonesia, 2019

2. LITERATURE REVIEW

2.1. *International Trade Theory*

The value theory used by Smith (1937) is the theory of production costs, although it originally used the labour value theory. Goods have a use value and an exchange value. Production costs determine the relative price of goods, so that two types of prices are created, namely the natural price and the market price in the long run, the market price will tend to equal the natural price, and with this theory the paradoxical concept of value arises [8].

The most amazing thought compiled by Walras (1874) about the theory of general equilibrium through four systems of equations simultaneously. The assumptions used by Walras are perfect competition, the amount of capital, labour, and limited land, while the production technology and consumer tastes are fixed.

2.2. *International Trade Concept*

According to law of the republic of Indonesia number 17 of 2006 concerning amendments to the laws number 10 of 1995 concerning customs article 1 point 14 export is the act of removing goods from the customs area. Meanwhile, the definition of import according to article 1 point 13 is the activity of bringing goods into the customs area. Export-import activities are trading activities of sale and purchase carried out internationally [9]. International trade is the trade carried out by residents of a country with residents of other countries on the basis of mutual agreements. The population in question can be between individuals, between individuals and the government of a country or the government of a country and the government of another country.

2.3. *Export Concept*

Export is removing goods from inside and outside the Indonesian customs area by complying with applicable regulations [10]. Reference [11] states that Exports are goods and services that are sold to foreign countries in exchange for other goods. Another opinion

put forward exports as goods and services that are sold to residents of other countries, plus services provided to residents of that country in the form of transportation of capital and other things that help export these. According to [6] exports are various kinds of goods and services that are produced domestically and then sold abroad.

2.4. Economic Growth Theory

There are 2 major schools of economic growth theory, namely; (a) The historical school is a theory of linear economic growth (theory of stages of economic growth); (b) The analytical school is a modern theory of economic growth (expresses the growth process logically & consistently, is abstract, does not emphasize history. Economic growth is a long-term per capita output growth process that occurs when there is an increase in output originating from the internal process of the economy itself which is temporary [12]. Reference [13] states that the notion of economic growth is a long-term per capita output growth process that occurs when there is an increase in output that comes from the internal processes of the economy itself and is temporary in nature. This means that growth is self-generating in nature which produces strength or momentum for the continuity of economic growth in the next period.

Reference [2] states that economic growth is a steady process in which the production capacity of an economy increases over time and results in an increase in national income. Explains the notion of economic growth as a long-term increase in the ability of a country to provide various types of economic goods to society. These women grow according to the development of technology, ideology and institutional adjustments in the country.

From the description above, we want to examine how the influence of exports for economic growth and see whether the relationship between exports and economic growth is getting stronger or weaker with the variable rupiah exchange rate as a moderating variable.

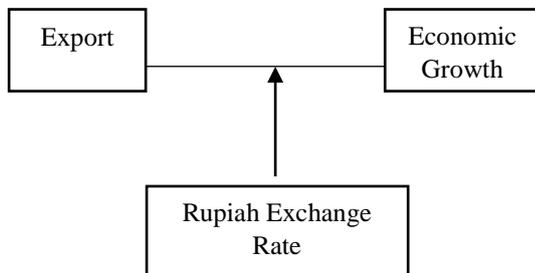


Figure 1 Research Framework

Hypothesis

H₁: Exports have an effect on Indonesia's economic growth.

H₂: Exports have an effect on Indonesia's economic growth, which is moderated by changes in the rupiah exchange rate

3. METHOD

This study uses a quantitative approach. A data source is anything that can provide information about data. Based on the source, the data are divided into two, namely primary data and secondary data. Data collection techniques in this study are: Library Studies. This research was conducted by collecting data and theories that are relevant to the problems to be studied by conducting a literature study of literature and other library materials such as articles, journals, books and previous research. The data analysis technique is regression analysis.

4. RESULTS AND DISCUSSION

The results of data analysis on the effect of exports on economic growth are shown in Table 2.

The results of simple linear regression in table 2 show the equation model: $Y = -2.397 + 1.373X + e$. The value of 1.373 indicates that if there is an increase in exports of Rp. 1, then economic growth will also grow by Rp. 1,373. From the results of the t test of exports for economic growth of 17.911, it is significant at 0.00 which is smaller than 0.05, so H₁ is accepted, meaning that exports have a significant effect on economic growth in Indonesia.

Table 2. Regression analysis result

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. error	Beta			
1	(Constant)	-2.397	.958		-2.501	.017
	Export	1.373	.077	.951	17.911	.000

Source: Analysis Data, 2019

Table 3. Determinant coefficient result

Model	R	R square	Adjusted R Square	Std. Error of the Estimate
1	.951 ^a	.904	.901	.07858

Source: Analysis Data, 2019

Table 4. Regression analysis with moderating variables result

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. error	Beta		
(Constant)	-32.710	11.147		-2.934	.006
(Export)	3.760	1.509	.977	2.491	.018
(Export*EX)	-.002	.067	-.009	-.023	.982

Source: Analysis Data, 2019

Table 5. Determinant coefficient result

Model	R	R square	Adjusted R Square	Std. Error of the Estimate
1	.968 ^a	.938	.934	.17128

Source: Analysis Data, 2019

Based on the output of table 3 analysis, it can be seen that the value of R Square is 0.904, this means that exports contribute 90.4% to economic growth and the remaining 9.6% is influenced by other variables such as investment, consumption and government spending.

Meanwhile, the results of the research on the effect of exports on economic growth, which were moderated by the rupiah exchange rate, as shown in table 4.

The results of regression analysis with moderating variables in table 4 show the equation model: $Y = -32,710 + 3,760 - 0,02 + e$. Meanwhile, the results of the determination coefficient showing the effect of exports on economic growth moderated in the rupiah exchange rate are shown in table 5.

Table 5 shows that after the export value is multiplied by the exchange rate, which becomes the moderating variable, the R Square value increases from 0.904 to 0.968 or 96.8%. This means that the exchange rate, which is a moderating variable strengthens the effect of exports on economic growth by 6.8%.

The results of the analysis found that the value of exports has a positive effect on economic growth in Indonesia. This is in accordance with the classical theory put forward by Schumpeter's theory emphasizing the importance of entrepreneurial planning in realizing economic growth. In this theory, it is shown that entrepreneurs are a group that will continually make reforms or innovations in economic activity. These innovations include: introducing new goods, enhancing the efficient way of producing something, expanding the market for something goods to new markets, developing new sources of raw materials and making changes in the organization with the aim of increasing the efficiency of company activities.

By developing the production of goods and services to the international market in the form of exports, this can indirectly increase the rate of economic growth.

This is what happened in Indonesia when seen in exports from 2010 to 2018 the value of exports increased, so the rate of economic growth in Indonesia also increased. If the export value decreases, Indonesia's economic growth will also decline. Export is an international trade activity that provides an incentive to grow domestic demand, which causes the growth of large factory industries, together with a stable political structure and flexible social institutions. In other words, exports reflect international trade activities, so that a developing country is likely to achieve economic progress on a par with more developed countries [2].

This research is in line with research conducted by [14]. Based on the analysis results, it is stated that in the period 2000-2015 the export variable had a positive and significant effect on GDP. The existence of a positive relationship between exports and economic growth in the long run means that policy making to promote exports will have an impact in the long term. This means that if the government continues to increase exports, in the long run this influence will be a factor that can increase Indonesia's GDP. The increased export value can increase APBN revenues and maintain balance sheet stability. In accordance with Keynes's theory that exports that are greater than imports can be high in economy, then the strategy of promoting exports is the right step.

The results of the study, with the rupiah exchange rate as a moderating variable, reinforce a stronger influence between exports and economic growth. This can be seen from the value of R Square, which increased to 96.8%. This indicates that after being moderated by the variance of the rupiah exchange rate, the effect of exports on economic growth is getting stronger. From these findings, it can be explained that changes in the rupiah exchange rate will have an impact on export relations and economic growth, because the export transactions carried out by the government and the private sector use the US dollar currency.

The exchange rate also greatly affects international trade, including exports. Reference [15] stated, the factors that influence export volume and export value depend on foreign income and output, the exchange rate of money and the relative price of domestic and foreign goods. If the value of foreign output increases, or the exchange rate against the currencies of other countries decreases, the volume of a country's export value will tend to increase, and vice versa. So that the amount and value of exports will be influenced by the relative prices between domestic and foreign goods, which in turn will depend on domestic prices, international prices and the exchange rate of the rupiah against the dollar.

In a floating exchange rate system, the depreciation or appreciation of the currency exchange rate will result in upward changes in both exports and imports. If the US dollar exchange rate depreciates, the value of the

domestic currency weakens and it means that the value of the foreign currency exchange rate strengthens. Will cause exports to increase and imports to decrease. So, the foreign exchange rate has a direct relationship with the volume of exports. If the value of the United States exchanges rate increases, the export volume will also increase.

5. CONCLUSION

Exports have an influence on economic growth. If exports increase, economic growth will also increase economic growth. The rupiah exchange rate as a moderating variable strengthens the influence between exports and economic growth in 2010-2018. This is because every government and private export transaction uses the US dollar currency.

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