The Effect of International Trade Performance and Price Stability on Economic Growth

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Abstract. This study aims to determine the effect of international trade performance and price stability on economic growth in Indonesia in 2014-2022. International trade in this study is indicated by the export and import variables in Indonesia. In this study using quantitative research using secondary data sourced from the Central Bureau of Statistics. The data used is in the form of a time series in the form of quarters with a period of 10 years starting from 2014-2022. Multiple linear regression methods are used in this study to analyze the effect of international trade (exports and imports) and price stability variables as indicated by inflation on economic growth in Indonesia. The results of this study indicate that the export variable has a negative but not significant effect on Indonesia's economic growth. Meanwhile, import and inflation variables have a positive and significant impact on Indonesia's economic growth.

Keywords: Export, Import, Inflation, Economic Growth

1 Introduction

A country's economy is said to develop and grow faster when its current level of economic activity exceeds the previous period. National Gross Domestic Product (GDP) variations have provided information about national economic growth. The rate of economic growth is one measure of the success of the development of a region or nation. For regional development plans and targets, each region always targets economic growth to increase every year[18]. Economic growth can be used by a country to assess and evaluate the condition of economic development within the country.

One of the key determinants in the economic development of a nation is economic growth which can increase the level of income per capita while increasing the prosperity and welfare of the population. Economic growth can be analyzed with related variables such as inflation, unemployment, and poverty. So that it can be used to characterize the achievement of a country in economic development [10]. Long-term increase in output per capita is part of the process of economic growth. Where the ability of a country to meet the needs of its citizens increases along with increased economic growth, as well as its ability to prosper the community.

The main causes of economic downturns are the proliferation of the daily money supply and

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the increased effectiveness of the use of factors of production. Addition to the value of real GDP is the main economic factor in macroeconomics. In other words, accelerated GDP has implications for accelerating economic growth. With the efficient use of resources where production factors are the main cause of economic growth. In macroeconomics, economic growth means an increase in the value of real GDP, where GDP that continues to increase also plays a role in increasing economic growth[1] . If a country has higher export activities than imports, it can cause GDP to increase so that economic growth in a country also increases(Fitriani, 2019). In international trade, export and import activities are one of the most important factors for increasing economic growth. According to development data, export activities have increased every year starting in 2018-2022 and for import activities in Indonesia starting in 2018-2022 there have been fluctuations. Based on the chart below, export activities in 2018 reached US$ 14,290,093,210.17 to US$ 28,827,858,043.97 in 2022. Thus, the export value from 2018-2022 increased by 66.74%. For import activities in 2018-2020 it has decreased from 15,364,986,090 US$ to 14,438,376,084 US$, while in 2021 the value of imports has again increased by 21,352,018,156 US$ and again decreased to 19,863,061,497 US$.

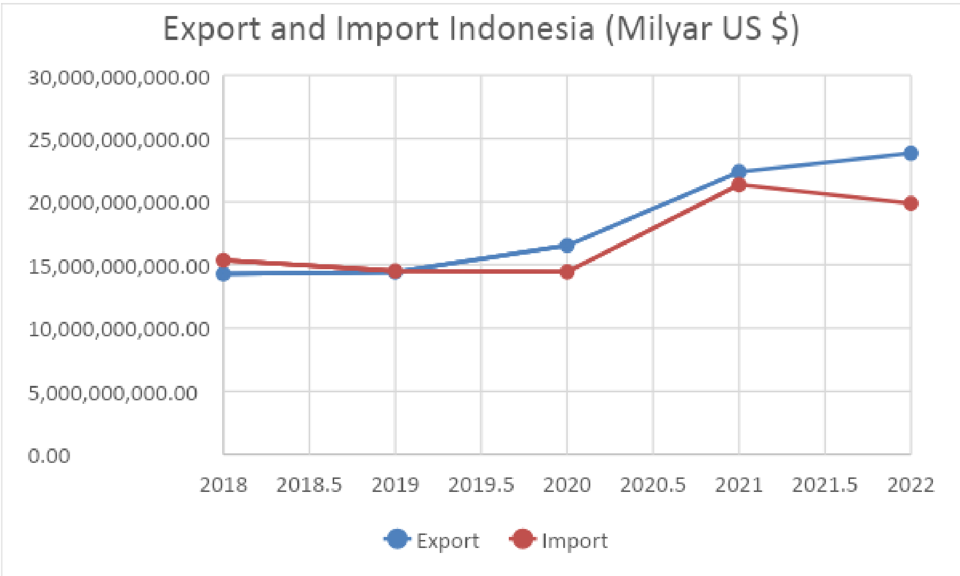

Fig. 1. Development of Exports and Imports in Indonesia in 2018-2022
Source: Central Bureau of Statistics of Indonesia

In addition to international trade, price stability is also an important focus for each country to control inflation and keep the demand side running smoothly so that economic growth remains stable. To maintain price stability or inflation, the Indonesian bank's policy is to maintain interest rates. as a central bank i.e. The economic condition known as inflation is characterized by a persistent tendency for the general price level (price level) to rise. This is caused by an imbalance in the flow of money and goods caused by several aspects. The economic indicator, namely inflation, is also a key component for analyzing the economy, including economic growth, unemployment, poverty, and export-import ([2] et al., 2018).

Previous research results, [12]; [13]; Fitriani, (2019) and [1]. that international trade activities indicated by exports have a positive impact on economic growth. The effect of exports in the short term has a positive impact but not too influential on Indonesia's economic growth. As for import activities(Fitriani, 2019) for economic growth in Indonesia has a negative impact, this is supported by research from[6] which shows that in the short and long term it has a negative and very strong impact on GDP in Indonesia. And according [3] Imports of goods have a continuous impact on economic growth. These influences are indirectly studied in this study using the inflation variable in addition to the inconsistent results of previous studies.

On the other hand,Inflation has a negative impact on economic growth although it is not significant according to research[2]. The research is supported by [15] which states that the inflation rate has a significant but negative effect on economic growth in Indonesia. This is as a result of developing economic problems that cannot be handled properly, for example the increase in the inflation rate that is currently occurring due to the corona virus pandemic, causing the prices of basic commodities to increase including the price of vehicle fuel. The pace of economic growth in Indonesia will be more negatively affected by the rising inflation rate.

Based on the background explanation above, this study aims to see how the contribution of international trade performance through export and import components and inflation as a form of reflection of price stability on economic growth in Indonesia.

2 Literature Review And Hypothesis Development

2.1 Economic Growth

A continuous process to improve the state of the economy in the country can also be called economic growth. The economy of a country is considered to be developing if the economic activities of its residents directly result in higher production of goods and services[14].

Simon Kuznets, provides an overview of economic growth as an increase in the long-term capacity of a country to provide a variety of commodities for society. Technological, institutional developments to meet needs, and ideological adaptations to meet these demands determine or enable capacity building itself(Saputra, 2016).

Growing national income is referred to as a form of economic growth. Therefore, when there is growth in total output, the economy is said to be growing or developing. A country's actual gross domestic product (GDP) can increase, shrink, or stay the same over time. Real national income can increase, remain constant, or be economically stagnant. Decline is a negative change, while growth is a positive change (Faried Wijaya 1990: 262).

Adam Smith stated in Boediono's book that there are two main components of economic growth in this country: growth in total production (GDP) and population increase. Meanwhile, Adam Smith observed that a country's mode of production consists of three main elements: accessible natural resources, human resources (people), and the availability of capital goods supplies. Natural resources in the country, according to Smith, are the most basic sources of productive activity in a civilization. The quantity of natural resources represents the greatest limit for economic expansion.

2.2 Export

Exports can be in the form of products or services produced domestically and sold to consumers abroad. Exports benefit the contemporary economy because they provide individuals and businesses with a larger market. One of the main goals of intergovernmental diplomacy and foreign policy is to encourage trade, including export activities, to benefit all trading partners. Exporting products improves the economy of a country[10].

According to [5] if domestic goods and services have been fulfilled then export activities can be formed because goods and services have competitive prices and characteristics in foreign markets with similar goods. Thus, exports generate foreign exchange for the country which is then used for development. In addition, these activities enable an increase in the amount of output that supports economic growth, and is projected to have a significant impact on the country's economic growth and stability.[10] .

2.3 Import

Import is the legal transportation of products from one country to another, usually during the trade process. Large product imports usually require customs action in both the supplying and receiving countries [5] . Imports allow countries to meet domestic demand that is not being met domestically, resulting in lower costs of products and services [10].

Countries are more inclined to carry out these activities with the aim of fulfilling goods or services that cannot be provided in their country. Many countries, for example, buy oil because they cannot produce enough oil at home. Tariff schedules and free trade agreements often determine which goods and resources are cheaper to import. A country's national income determines the value of imports; the greater the national income, the lower the output of local products and the higher the imports due to the massive leakage of national money.

2.4 Inflation

Inflation is one of the important economic factors, the growth rate is kept low and stable so as not to trigger macroeconomic diseases that result in economic instability. Inflation affects the economy both positively and negatively [15].

According to (Putong, 2017) Inflation is determined using index data collected from various kinds of goods exchanged in the market with their respective economic growth rates (of course these goods are the most numerous and constitute the basic needs of society). The index number is calculated using Economic Growth statistics. The Consumer Index is the number used to calculate the goods purchased by consumers

Some of the previous studies used as a reference, among others (Supiyadi & Anggita, 2020) shows that international trade activities are also a factor for economic growth in Indonesia. Where imports have a positive impact and exports have a negative impact so that an increase in exports becomes a driving force for increasing production activities, as well as growth in the value of imports, especially in the industrial sector which cannot be produced domestically.

Meanwhile if used as a source of state revenue to support the economy, exports in a continuous time can provide benefits for economic growth. For import activities which constitute state expenditure for a commodity, imports have a negative impact on economic growth. This is supported by proprietary research [12] exports have a long-term positive effect on economic growth if used as a source of state revenue to support the economy. Imports however, have a negative effect on economic growth because it is a burden on the state for imported goods.

Meanwhile, inflation has a negative effect on economic growth, although not significantly according to research [2]. The research is supported by [15] which states that the inflation rate has a significant but negative effect on economic growth in Indonesia. This is as a result of developing economic problems that cannot be handled properly, for example the increase in the inflation rate that is currently occurring due to the corona virus pandemic, causing the prices of basic commodities to increase including the price of vehicle fuel. The pace of economic growth in Indonesia will be more negatively affected by the rising inflation rate.

The hypothesis is a temporary allegation whose truth has not yet been revealed, so it can be considered a temporary conclusion. Based on existing theories and literature, there are several hypotheses, namely export and import activities have a positive effect on economic growth, while the inflation rate has a negative effect on economic growth.

3 Research Methods

The research method used in this study is descriptive analysis used to describe phenomena related to the problems studied. In this study using secondary data where research data sources are from the Central Statistics Agency (BPS) and Bank Indonesia Statistics. The period in this study uses 2014-2022 because we want to make more in-depth observations of international trade performance and price stability before and during the Covid pandemic.

3.1 Method of analysis

To measure the influence of the magnitude of the independent variable and the dependent variable used regression analysis. In this research, the regression used is multiple linear regression. It is called multiple linear regression because of the independent variables
The equation form of multiple linear regression in this study is:

$$\mathrm{EG}_t = \beta 0 + \beta 1 Log\mathrm{Export}_t + \beta 2 Log\mathrm{Import}_t + \beta 3\mathrm{Inflation}_t + e_t \quad (1)$$

Where :
$\beta 0$ = Intercept
$\beta 1$, $\beta 2$, $\beta 3$ = Coefficient
EG = Economic Growth (percent)
Log Export = Value of Export (milyar)
Log Import = Value of Import (milyar)
Inflation = Rate of Inflationt (percent)

In this method, first is done classic assumption test to find out or test the feasibility of the regression model. There are several classical assumption tests, the first of which is the normality test where the residual data must be normally distributed. The second is a multicollinearity test to find a correlation between independent variables. Third, there is an autocorrelation test to determine the correlation between interfering errors in the current period and the previous period. The last one is the heteroscedasticity test to see whether there is an unequal variance from one residual on one observation to another.

After testing the classical assumptions, then testing the hypothesis. In testing the hypothesis, there are several methods that are used, the first is the t-test (t-test). The t test is used to prove that the effect of the independent variables on the dependent variable individually has a significant effect or not. Furthermore, there is an f test which is carried out to test the independent variables but jointly have an influence on the dependent variable or not. And the last one is to test the coefficient of determination by looking at the R-Square value in the regression results

4 Results And Discussion

4.1 Classical Assumption Test Results8

Table 1. Classical Assumption Test Results

Test	Variable	Prob value.	Information
Normality test		15.42633	Normal distributed data
Multicollinearity Test	Export	9.300538	There is no multicollinearity
	Impor	9.238088	
	Inflation	1.033498	
Autocorrelation Test		0.796528	Positive Autocorrelation
Heteroscedasticity Test		0.0167	There is Heteroscedasticity

Processed: Eviews 10

Based on the results of some of the classic assumption tests above, in the normality test, the probability value is 15.42633, thus it can be said that the data is normally distributed because the value is above 0.05. In the multicollinearity test using the variance inflation factors method on the export, import and inflation variables, the values are 9.300538, 9.238088, and 1.033498, so that none of the three variables has a VIF value of more than 10, so there is no multicollinearity. Next is the autocorrelation test where the results of data processing can be seen through the Durbin Watson value which has the number 0.796528 so that it can be concluded that Durbin is in a positive autocoellation area which is marked by the above values being greater than the Durbin Watson stat value. Finally, in the heteroscedasticity test, the prob value was obtained. chi square 0.0167, this value is smaller than 0.05. Therefore, it can be said that there is heteroscedasticity.

4.2 Regression Estimation Results

Table 2. Estimation Results

Variable	Coefficient	Probability	Information
Export	-8.627969	0.1133	Insignificant Negative
Impor	12.48823	0.0466	Significant Positive
Inflation	0.50414	0.0466	Significant Positive
R-Squared	0.272365		
F Probability	0.015979		

Processed: Eviews 10

For the t test on the export variable based on the value of the probability it has a value of 0.1133 so that the export variable has a negative and insignificant effect on economic growth in Indonesia in 2014-2022. For the import variable, it is based on a probability value of 0.0466 so that the import variable positively and significantly influences economic growth in Indonesia in 2014-2022. And finally for the inflation rate based on the value of probability which has a value of 0.0278 so that the inflation variable positively and significantly affects economic growth in Indonesia in 2014-2022.

Whereas for the F test based on the regression results the number of prob f is 0.015979 which is obtained from the results of processing the regression data where the number is smaller than 0.05, so that economic growth in Indonesia in 2014 to 2022 is jointly influenced by the value of exports , imports and inflation rates.

Finally, for testing the coefficient of determination based on the regression results of the R-Square value, namely 0.272365 or 27.23%. Where the magnitude of the influence exerted by exports, imports, and the inflation rate together affects economic growth in Indonesia in 2014-2022 of 27.23%. And that is influenced by other variables, namely 72.77%.

Based on the analysis, it can be concluded that the variables of exports, imports and inflation jointly affect economic growth in Indonesia from 2014-2022. It is supported(Monita et al., 2019) that by using a significance threshold = 0.05, international trade which includes exports and imports has a major effect on economic growth. As a result, it can be concluded that they have a considerable impact on Indonesia's economic growth rate.

Based on research on the export variable, it states that it does not significantly affect economic growth in Indonesia from 2014-2022. The results of this study mean that the higher the exports made by the Indonesian State, the greater the impact on economic growth in Indonesia will not have. This research is supported by [7] that exports carried out by a country do not directly affect economic growth projected by GDP. However, this is very contrary to property results(Fitriani, 2019), that is, these exports have a positive impact on economic growth.

For import activities, it can be seen that when import activities are carried out, they can significantly affect economic growth in the State of Indonesia starting in 2014-2022. Thus, if imports made by Indonesia are higher, economic growth in Indonesia will also increase as well. The results of this study are in accordance with research conducted by([11] et al., n.d.) which states that if imports increase, economic growth will also increase. Whereas(Fitriani, 2019) from his research contrary to the research above that imports have a negative effect on economic growth.

The inflation rate has a significant effect on economic growth in Indonesia in 2014-2022. So that the higher the inflation that occurs, it can cause a slowdown in economic growth in Indonesia. Meanwhile according [8] Inflation had a negative and significant effect on economic growth in Indonesia in 1983-2014.

The following is the movement of exports, imports, inflation and economic growth in Indonesia in 2014-2022.

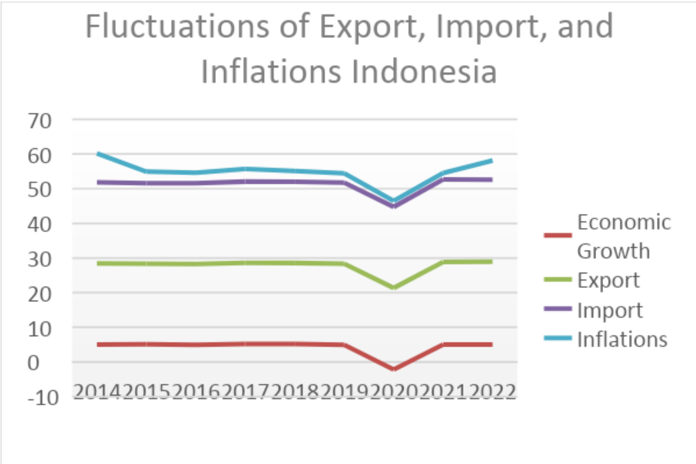

Fig. 2. movement of exports, imports, inflation and economic growth in Indonesia
Source: Central Bureau of Statistics of Indonesia

Judging from the graph above, economic growth in Indonesia has fluctuated every year. In 2014 and 2015 economic growth in Indonesia reached 5.05 and 5.15 percent. However, in 2020 economic growth in Indonesia experienced a very significant decline due to the Covid pandemic. And in 2021-2022 economic growth will begin to increase again until it reaches 5.03 and 5.01 percent. Meanwhile, export activities from 2014-2022 did not experience significant movement, which has an average value of 23% annually. Even though in 2020 it has decreased, it has not decreased significantly. Likewise, import activities also have an average value of 23% annually. While the inflation rate in Indonesia in 2014 had the highest value, reaching 8.36% but fell significantly in 2015 with a figure of 3.35%. And the inflation rate will rise again by 5.51% in 2022.

Limitations in this study the authors only examine the three independent variables or factors that influence economic growth include exports, imports and inflation rates

5 Conclusion

Based on the results of the study it can be concluded that the export variable shows a negative but not significant effect on economic growth in Indonesia. Meanwhile, import and inflation variables have a positive and significant effect on economic growth in Indonesia. So that policy makers need to improve export performance, especially increasing the quality and competitiveness of export commodities so that they can contribute to driving economic growth. In addition, policies to maintain price stability need to be continuously improved to maintain public purchasing power and maintain stability in the production sector which will ultimately have an impact on economic growth. In addition, what the government must pay attention to is efforts to maintain a balance of export and import transactions in order to increase economic growth. For policies that must be carried out by the government is to always carry out reforms, both policies related to monetary and fiscal policies, one of which is inflation, because inflation is also one of the factors that influence economic growth, especially in Indonesia.

This research still has limitations, among others related to the complexity of the variables used so that future research with a similar theme can explore more deeply.

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