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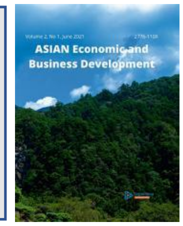

Analysis of Exports and Imports' Effects on Economic Growth in Post-COVID-19 Indonesia

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Abstract

The Covid 19 pandemic that occurred in early 2019 threatened all countries, including Indonesia, apart from the health sector which was greatly affected by the pandemic, namely economic growth, and even reached a negative point. Various policies that have been carried out by the government to break the chain of spread of Covid 19, one of which is large-scale social restrictions, all transportation routes between countries are tightened, especially with regard to export and import, cooperation between countries in trade is temporarily closed, until the situation is completely recovered , of course this is a bad signal for the Indonesian state in the economic field, this is because international trade cooperation in terms of export import is one of the contributors to economic growth. As time goes by, the spread of the Covid-19 virus has decreased, economic recovery is increasingly being carried out to return conditions to normal, access to transportation and international trade cooperation for export and import are slowly opening. The purpose of this research was to examine the impact of exports and imports on economic growth following the Covid-19 pandemic, this study used the Eviews 9 analysis tool for error correction or Error Correction Model (ECM), from these calculations the results obtained were a moderate positive relationship between exports and imports with post-Covid-19 economic growth

Keyword : Economic Growth, Export, Import, Covid 19
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Introduction

The country of Indonesia is known as an archipelagic country stretching from Sabang to Merauke with a fairly high population, and abundant natural resource potential that is not owned by other countries, so that many countries have collaborated with the Indonesian state to obtain natural resources that cannot be exploited. produced independently. In the Indonesian economy, one of the supports comes from the Export and Import sector, good relations between countries are very important to establish good cooperation in trade, especially with regard to the procurement of goods and services, but in 2019 until the end of 2021 the working relations between Indonesia and other countries are experiencing problems caused by the Covid 19 pandemic originating from China which attacked 185 countries, so to break the chain of spread of the virus the Indonesian government has placed large restrictions on interactions, especially interactions between countries, so trade cooperation relations are temporarily stopped until the country those affected by Covid 19 recovered, of course this policy had a sizable impact on Indonesia's economic growth, even at a negative point and paralyzing all economic sectors (Rusmini, Cahyono&et al, 2023)

Economic recovery has been carried out by several countries, including Indonesia, the reduction in the transmission of Covid 19 is a breath of fresh air for international trade, this is a starting point for resuming cooperation between countries which has experienced obstacles for more than a year, slowly opening international market access has been carried out, it is hoped it will increase economic growth. In the understanding of mercantilism it is explained that the welfare of a country can be measured by the capital owned and the sale of high output to foreign countries (exports) and minimize imports by providing high enough entry tariffs on foreign products so that a country's economy is always at a positive level (Lusiana , 2021). However, according to Todaro and Smith, it means that a country's economic growth is supported by an increase in output produced by a country in a sustainable manner with an orientation towards absolute superiority in a product, in this case not only the increase in output is a parameter of the success of a country's economic development, but also how the resulting product can last for a long time through its absolute superiority (Hodijah & Angelina, 2021)

Cooperation relations between countries in the export and import sectors are increasingly being enhanced to support post-covid 19 economic growth. According to previous research, exports and imports, both have a significant impact on the economy over the long run if there is a positive correlation between domestic production and foreign demand, but in the short run, exports play a crucial role in boosting economic growth, whereas imports have an adverse effect and reduce it significantly (Zatira & Apriani, 2021). But in other studies it is explained that exports and imports do not have a direct effect on economic growth as seen from the exchange rate, this is because there is a dependence of the Indonesian state on foreign products, especially when inflation has increased, especially in consumption products. The low purchasing power of consumers is caused by the weakening of the exchange rate which causes an increase in the price of goods which causes a decrease in economic growth (Fauziah & Khoerulloh, 2020).

Table 1. Export, Import and Economic Growth Data in Indonesia from 2002-2021

Year	Indonesian Economic Growth Data (%)	Export (%)	Import (%)
2002	3.7	1.45	24.25
2003	4.1	3.25	25.95
2004	5.1	2.65	29.83
2005	5.69	4.29	39.27
2006	5.5	4.56	38.11
2007	6.35	6.01	33.88
2008	6.01	5.17	34.87
2009	4.63	6.68	21.76
2010	6.22	10.9	22.59
2011	6.49	8.6	27.06
2012	6.26	4.46	27.52
2013	9.32	2.92	27.26
2014	9.2	4.17	28.96
2015	7.68	3.65	18.83
2016	6.29	5.32	15.82
2017	8.19	6.29	19.28
2018	7.9	6.27	19.54
2019	5.91	4.6	18.88
2020	-3.37	4.92	15.9
2021	8.55	6.5	22.17

Source: Central Bureau of Statistics of Indonesia, (processed)

Economic growth in Indonesia during 2002-2021 experienced fluctuating conditions every year. Economic growth in Indonesia in 2022 will be at 3.7% because in this era Indonesia is still in the reform era which is still affected by the 1998 economic crisis. Economic growth from 2002-2021 averaged 6%. However, Indonesia's condition was felt to be experiencing a turbulent economic crisis, namely in 2009 where Indonesia's economic growth experienced a quite drastic decline. Even so, the phase in which Indonesia was truly experiencing deplorable conditions occurred in 2020 where Indonesia's economic growth reached a minus number of -3.37. This was caused by the Covid-19 pandemic which affected all countries in the world, causing all economic activity to stop. However, after the post-pandemic period, Indonesia's economic growth increased again in 2021 by 8.55%, making Indonesia rise again from its slump.

The primary indicator of economic growth is exports; as exports rise, so will economic growth. However, if seen from the data above, export growth has increased in 2010, this is because in 2009 Indonesia's economic growth declined so as to raise the Indonesian economy so that it does not fall, the government carried out exports so that state revenues increased. Therefore, Indonesia's export data for 2002-2021 appears to have fluctuated. Likewise with imports which experienced fluctuating growth, the highest import occurred in 2005 amounting to 39.27%. Based on the foregoing justifications, the purpose of this study is to determine if exports and imports are related to economic development, particularly in the wake of the Covid 19 epidemic.

Literatur Review

One of the indicators that can be used to measure the level of prosperity of a country can be seen from its economic growth. Economic growth can be seen from the economy that will grow and develop when there is an increase in population which can expand markets and encourage specialization. This specialization can increase the productivity of workers and can create advanced technology and economic growth (Alola, Ozturk, & Bekun, 2021).

Economic growth is a condition of increasing capacity over a long period of time from the countries concerned in providing various kinds of economic goods for their residents. The increase in capacity is caused by advanced technology, institutions (institutions) and ideological response to the various demands of the existing situation (Magdalena & Suhatman, 2020). To determine the country's economic growth can use indicators of the level of Gross Domestic Product (GDP). Indonesia's economic growth is based on Gross Domestic Product (GDP). Gross Domestic Product (GDP) is the sum of all remuneration obtained from the factors of production that participate in the production process in a region or region within the country and for a period of one year. When Indonesia's economic growth declines, it will have an impact on the decline in the rupiah and will affect the supply of exports, when the supply of exports increases, the number of goods to be exported will also increase (Pambayun, 2021).

Good and high economic growth will describe a strong economy, this high economic growth can be seen from the high State Domestic Product (GDP). When Indonesia's national income (GDP) increases, it can also increase people's ability to produce goods and be able to export these goods to other countries (Duha & Saputro, 2022). GDP is a gauge of the market value of finished products and services generated over the course of a year using a variety of national resources. Gross Domestic Product (GDP) can be used as a learning medium for an economy from time to time, and can also be used as a comparison for several economies. Gross Domestic Product (GDP) is national income and total national spending on the output of goods and services in a certain period of time. GDP can describe how the economic conditions in a country are, where when a country's GDP slowly rises, the economic performance of that country can be said to be good too. Gross Domestic Product (GDP) has a very important role for the economy of a country, therefore it requires an analysis of what factors can affect the GDP (Korneta & Rostek, 2021).

Coronavirus or the COVID-19 pandemic is a disease that has a fairly fast transmission rate and can cause death. Therefore, the Covid 19 virus cannot be considered a trivial disease even though in 1960 this disease was considered to be the cause of the common cold. Acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a virus that causes the contagious illness Covid-19 and belongs to the large coronavirus family that can attack animals (Khavarian-Garmsir, Sharifi, & Moradpour, 2021). However, the coronavirus often causes respiratory tract infections in humans when this disease strikes, including the flu, SARS (Severe Acute Respiratory Syndrome), and MERS (Middle East Respiratory Syndrome). It was originally identified as a new form of virus in Wuhan, Hubei, China in 2019, and it has since spread around the globe, including to Indonesia (Sukmana, Aminuddin, & Nopriyanto, 2020).

On March 2, 2020, two Indonesians were verified to have caught Covid-19 from a Japanese national, which led to the country's first positive case of the disease being found there (Nurcahyono, Hanum, & Sukesti, 2021). Since Central Java, West Java, and DKI Jakarta were the provinces most exposed to this virus on April 9, the epidemic had spread to 34 provinces. As of August 10 2021, it was noted that Indonesia has 3,718,821 positive cases, placing it #1 in Southeast Asia. With a total of 110,619 fatalities, Indonesia ranks third in Asia in terms of mortality rates. Since the published statistics do not include cases of mortality from acute Covid-19 symptoms that have not been verified or tested, the death rate is predicted to be significantly higher than the data (Aisyah, Mayadewi, Diva, Kozlakidis, Siswanto, & Adisasmito, 2020). To anticipate the spread of the Covid-19 virus, in the end many countries have implemented regional restriction policies or lock downs so that the virus does not spread widely. As a result of Covid-19, which was followed by the Wuhan City lockdown policy and quarantine of other cities and provinces, various community activities have been reduced and even stopped. In addition, the activities of the financial sector, banking and even export-import have decreased with a decline, which was 6% before the pandemic, now it is 2%. The impact of the corona virus outbreak is not only detrimental to health, but this virus also affects the economies of countries around the world, including Indonesia. The wheels of the global economy are slowing down, affecting the business world. Where the economic sector is a sector that has a very severe impact (Mukti & Ramdhani, 2020).

Export is a trading activity that is carried out by removing domestic goods outside the customs area boundaries which must meet the terms and conditions that apply. Indonesia, which is split into two sectors—the oil and gas sector and the non-oil and gas sector—has occasionally quite divergent trading patterns. Oil and gas exports are made up of natural resources like petroleum, whereas non-oil and gas exports are made up of manufactured goods, agricultural products, and mining commodities. Business entities in the form of legal entities or not legal entities which include individuals who can carry out export activities can be called exporters. An ever-evolving economy is one of the most important things for a business group to be able to penetrate export sales. When exporting, business actors are expected to have more export competitiveness and be able to do good marketing (Cai, Liu, Zheng, Hu, & Tan, 2023).

Export is a way when an activity related to sales can run from a group of commodities that we have to other countries which must be in accordance with the policies that have been given by the government for the desire of payment, namely in the form of foreign exchange (Qurratu'Aini & Hapsari, 2019). Export-import activities are one of the activities carried out when a country is unable to meet the needs of its own country, and this export activity is based on the nature of dependence and complementarity between countries. Because various countries in the world have different natural resources, and their climate, geographical location, economic structure and social structure are also different. The existence of these differences and linkages is one of the causes of international trade, because each country has its own advantages and disadvantages. Commodities that will be produced by a country may not necessarily be used directly because they still require further processing stages, from which these raw materials can be used by other countries for raw materials for their factories (Elfira, Silvia, & Nasir, 2022).

Imports are products or services that are bought in one nation but made in another. The term "imports" can also refer to a part of international trade. The act of bringing products into the customs area is known as importation, in accordance with Indonesian law. Literally, import refers to the action of importing products from overseas into our nation or the customs territory. If a nation's imports are more than its exports, it is said to have a negative trade balance, sometimes referred to as a trade deficit (Karoui & Khemakhem, 2019).

A country decides to carry out import activities due to reasons that the country cannot produce the goods it needs on its own or goods produced domestically are usually not as efficient or cheap as the exporting country. For instance, many countries import oil because they cannot produce it at home or because there is not enough supply to meet demand. Typically, the value of imports is based on the amount of the nation's national revenue. Due to the numerous national income leaks, a country's output of domestic goods decreases and its imports increase as its national income increases. The level of consumption in a nation rises in tandem with import levels, leading to a deficit in the nation's balance of payments and ultimately harming the economy of that nation (Mizik & Gyarmati, 2021).

Research Methods

Secondary data are this research's data source. Secondary data is information gleaned from the findings of earlier studies rather than information gathered via direct observation. The secondary data sources in question consist of worldwide publications found in numerous databases, including Scopus, Researchgate, and Science Direct, that are associated with the study issue. They also include scientific papers, journals, theses, and dissertations.

In this study will use the literature review method. Literature review or literature review according to Ilahi (2018) is research conducted by researchers by collecting data from various sources such as books, articles and other references related to research problems and objectives. The use of this method is due to conditions that limit researchers in collecting data in the field.

This study also uses an Error Correction Model (ECM) with the condition that the data are not stationary at levels, but the variables are cointegrated with each other. The data calculation uses the E-views 9 program. To analyze exports, imports and economic growth, the model used to correct short-term and long-term imbalances is as follows:

Common Error Correction Model (ECM) models are:

$Yt = a0 + a1\ \Delta Xt\text{-}1 + a2\ \Delta ECt\text{-}1 + \varepsilon t$………………………………….. (1)

The Error Correction Model (ECM) isGDPt = $a\,0 + a\,1\ \Delta$EKSPORt + $a\,2\ \Delta$IMPORt +ECTt…………………. (2)

Where, GDPt is Economic Growth, D (EXPORT) is Real export, D (IMPORT) is Real import, $a0$ is Constant, $a1$, $a2$, and $a3$ is Coefficient, εt is Error items, and ECTt-1 is Error Correction Model.

This study uses data analysis techniques in the form of quantitative descriptive analysis using theory and data related to this research. In analyzing the data, this study used Microsoft Exel

2011 software and processed using E-views 9. Several stages were carried out in analyzing the research data, namely the Significance Test.

1. H0 is rejected if the significance level of t 0.05, indicating a significant interaction between one independent variable and the dependent variable.

2. H0, which denotes that there is no significant influence of one independent variable on the dependent variable, is accepted if the significance value of t > 0.05.

Results and Discussion

To analyze an estimation result, it is necessary to test the data first. The data analyzed is data on economic growth, exports and imports for 2013-2021. Multiple Regression Analysis utilizing the E-views 9 program was the data analysis technique employed in this investigation. To determine how the independent variable (X) affects exports and imports to the dependent variable (Y), which is economic growth, multiple linear regression analysis is utilized. The following information was obtained by multiple linear regression analysis utilizing the E-views 9 application's data processing program:

Table 2. Error Correction Model (ECM) Analysis Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6.359444	11.35329	-0.560141	0.5957
X1	0.607237	1.379937	0.440047	0.6753
X2	0.462246	0.300797	1.536740	0.1753

R-squared	0.297145	Mean dependent var	6.375556
Adjusted R-squared	0.062860	S.D. dependent var	3.859699
S.E. of regression	3.736419	Akaike info criterion	5.735334
Sum squared resid	83.76498	Schwarz criterion	5.801076
Log likelihood	-22.80900	Hannan-Quinn criter.	5.593464
F-statistic	1.268307	Durbin-Watson stat	1.182859
Prob(F-statistic)	0.347214		

Based on table 2, a result of multiple linear regression analysis has been produced which is included in the multiple linear regression equation, namely:

$$Y = \beta_o + \beta 1 \text{ Log}X1 + \beta 2 \text{ Log}X2 + e \text{ ....}(3)$$

$$Y = -6{,}359 + 0{,}607\text{Log}X1 + 0{,}462\text{Log}X2 + e \text{ ....}(4)$$

The coefficient value of each variable may be observed based on the equation's function. Therefore, each of the aforementioned factors has both a good and bad impact on Indonesia's economic growth following COVID-19. Data on exports and imports that have a major or insignificant impact on economic growth in Indonesia following Covid-19 may be collected in accordance with the conclusions of the multiple linear regression analysis presented in this study. Then the following is a discussion according to the results of the research that has been tested:

From table 2 the R-Squared value is 0.297, this indicates that around 29.7% of the variation in economic growth can be explained by the export (X1) and import (X2) variables in this model. Demonstrates that exports and imports have a little beneficial impact on post-Covid-19 economic development. However, there is still 70.3% variation in economic growth that cannot be explained by the variables in this modeling, so there are other factors that also function in explaining economic growth.

The inclusion of the independent variable to this regression model somewhat improves the model's capacity to explain changes in economic growth, as indicated by the Adj. R-Squared value of 0.063. Even though there is an increase, this low value proves that this model may not include other important factors that can affect economic growth after Covid-19.

S.E. of regression obtained was 3.736 trillion. This shows the level of error in predicting economic growth using this regression model. The lower the value obtained, the better the model is in predicting observation values

Sum Squared Resident obtained a value of 8.376 trillion. In this case it means showing the total sum of the squares of the difference between the actual observed value and the value predicted by the model. The lower this value, the better in making predictions.

The F-Statistic is high, reaching 1.268 trillion, while the Prob F-Statistic is also high, reaching 0.347. This shows that the regression model is not statistically significant in explaining the relationship between the independent variables and the dependent variable. This means that there is not enough evidence to support the claim that exports and imports are significantly impacted by post-Covid-19 economic growth according to this regression model.

Conclusion

After conducting research on the impact of exports and imports on economic growth in the post-Covid-19 era, it has been determined that there is a moderate positive correlation between export and imports and economic growth, as shown by the regression results. However, this regression model may not be able to include other important factors that affect economic growth. Therefore, further analysis and a more complete model are needed to understand the actual relationship between exports, imports and post-Covid-19 economic growth.

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