

THE EFFECT OF GOVERNMENT REVENUE AND EXPENDITURE ON ECONOMIC GROWTH

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Abstract

This study leads to an analysis of the relationship between exports, imports, and central government spending on the growth of the Indonesian economy. In this study, we selected periodic data throughout 1990-2020 obtained from the World Bank and Financial Notes. The ECM (Error Correction Model) analysis method is used in this study. Then tested using the stationary test, cointegration test, and the classical assumption test. This study obtained the results that export and import variables have an influence on economic growth in the short term, while central government spending has an influence on economic growth in the long term. Therefore, the researcher concludes that better government involvement in economic growth is needed for the economy to function smoothly. To avoid a negative trade balance, the government must be able to control both exports and imports, as well as budgetary spending. In this situation, the government is viewed as a policymaker and a state stakeholder, and it is hoped that it will make sound policy decisions that will benefit Indonesia's economy.

Keywords: *Economic Growth, Export, Import, Central Government Expenditure*

1. INTRODUCTION

Indonesia is in a developing stage, and the Indonesian government needs to develop and implement a national development strategy to make Indonesia a developed country. One of the goals in national development in developing countries is to improve the economy. One of the keys to state development and the success of economic development in the context of achieving community welfare and prosperity is economic growth. The economic progress of a country is an interesting issue in economic discussion, and the country can accelerate economic development through the expansion and advancement of labor and product commodities. The key factors in a country's economic growth are believed to be private consumption, government spending, investment, exports, imports, and other factors (Supiyadi & Anggita, 2020).

Export-import is an essential aspect of international trade for fostering economic expansion. In addition, in order for development to be successful, the government must make efforts, particularly in the economic sector, such as issuing a budget for economic sector development. The State Budget outlines fiscal policy as one of the government policies that influences economic growth (hereinafter referred to as APBN) (Stievanly & Jalunggono, 2022), where in the APBN there are details of government revenues and expenditures within a period of 1 period. This study leads to an analysis of the relationship between exports, imports, and central government spending on the growth of the Indonesian economy.

2. LITERATURE REVIEW

2.1. Economic Growth

Economic growth is a measurement of a region's expansion as a supplier of goods to the general public. The researcher chose the Gross Domestic Product (GDP) model's specification. Actual economic growth is the expansion of national production of goods and services, including the production of capital goods. Economic expansion is crucial for the nation's development. Where economic growth is an indicator of income welfare, rising income can reflect welfare levels. In fact, increasing economic growth is a measure of a government's success in promoting the welfare of its citizens.

The increase in goods and services in people's economic activities in order to increase production and national income is a process of economic growth, so as to achieve maximum economic growth, according to various perspectives. By implementing exports, imports, capital formation, and foreign direct investment, economic growth can be increased in a variety of ways. Various studies have demonstrated that exports, imports, capital formation, and foreign direct investment affect a region's economic growth. According to Safari and Fikri (2016), export variables and capital formation have a significant impact on Indonesia's economic growth.

2.2. Export

In open macroeconomic theory, exports are a component of the ratio that generates national income and grows the economy. Export is a total expenditure variable that can affect the expected income of a country. This is in accordance with the research of Astuti & Ayuningtyas (2018) which explains that export variables have an influence on long-term economic growth. As exports increase, total spending also increases which can increase government revenues. However, not all increases in exports will affect the increase in economic growth. There is also an increase in exports that can reduce economic growth.

2.3. Import

According to the laws of the Republic of Indonesia, importing is the act of bringing goods to customs. Import is usually the activity of bringing merchandise through customs to the sending and receiving countries. If imported products cannot be produced or if the state can produce the products needed but cannot meet the needs of the community, then imports are carried out to meet the needs of the people. Import activity affects two regions. In this case, the interests of the two companies can be represented between the two countries. One plays the role of regulator and supplier and the other plays the role of beneficiary (Fajar, 2021). Research result by Astuti & Ayuningtyas (2018) shows that imports have an influence on economic growth. Meanwhile, Hodijah & Angelina (2021) revealed that imports have a negative impact on economic growth.

2.4. Central Government Expenditure (PPP)

Government spending is a component of fiscal policy, the government actions that regulate the flow of the economy by setting the level of government revenues and expenditures each year, as well as the State Revenue and Expenditure Budget Document (APBN) for national and the Regional Revenue and Expenditure Budget Document (APBD) for regions. The objective of this fiscal policy is to stabilize prices, output levels,

and employment opportunities while stimulating or promoting economic growth (Anitasari & Soleh, 2015).

3. RESEARCH METHODS

The study chose secondary data or time series provided by the World Bank and Financial Notes. Using data on economic growth, exports, imports, and central government spending from 1991 to 2020. This research employs EViews 10 and the ECM (Error Correction Model) analysis technique. The approach is essential for elucidating the short- and long-term connections. Systematic ECM models are:

$$GDP = (Export_t, Import_t, PPP_t)$$

Information :

GDP = Economic Growth/year
 $Export_t$ = Exports/year
 $Import_t$ = Imports/year
 PPP_t = Central Government Expenditure/year

So the equation of the long-run model is:

$$GDP = \alpha_0 + \beta_1 Export_t + \beta_2 Import_t + \beta_3 PPP_t + \varepsilon_t$$

Information :

GDP_t = Economic Growth/year
 $Export_t$ = Exports/year
 $Import_t$ = Imports/year
 PPP_t = Central Government Expenditure/year
 ε_t = Error Term

The equation for the short-term model is:

$$D(GDP_t) = \alpha_0 + \beta_1 D(Export_t) + \beta_2 D(Import_t) + \beta_3 D(PPP_t) + \beta_5 ECT + \varepsilon_t$$

Information :

$D(GDP_t)$ = Economic Growth/year/already changed in first difference
 $D(Export_t)$ = Export/year/already changed on first difference
 $D(Import_t)$ = Import/year/already changed on first difference
 $D(PPP_t)$ = Central Government Expenditure/year/already changed in first difference
 $ECT-1$ = Error Correction Term
 ε_t = Error Term

1. Stationary Test

The stationary test is the first test to be carried out in this study. Each variable must be tested by ADF (Augmented Dickey-Fuller) test, and must be level stationary. The equation for the stationary test of the data with the unit roots test is:

$$Y_t = \rho Y_{t-1} + e_t - 1 \leq \rho \leq -1$$

Here, e_t is a disturbance variable with random or stochastic properties (white noise).

2. Cointegration Test

Cointegration test is used after the stationary test, that all variables are at the same degree of integration. Test this too is a way of looking at long-term relationships in economic equilibrium. This test intends to test whether the regression residue produced is stationary or not.

3. ECM (Error Correction Model) Test

The ECM (Error Correction Model) method is accompanied by the Engle Granger method, where two variables are stationary at the level of differentiation and there is cointegration between these variables. Cointegration of both means that in the long run these variables remain in a relationship or equilibrium. Whereas in the short term there may be an imbalance.

4. Classic Assumption Test

a. Normality test

Tests are carried out to evaluate the distribution of data from one variable, whether the distribution is normally distributed or not. There are two methods available, namely histogram and test developed by Jarque-Bare (JB).

b. Multicollinearity Test

Tests are carried out to determine whether there is a relationship between the independent variables of the regression model (Ghozali, 2016).

c. Heteroscedasticity Test

Tests were conducted to determine whether the regression model contains elements of heterogeneous variance. There are two methods used to detect the problem of non-uniform dispersion, namely the formal method and the informal method (Agus Widarjono, 2013).

d. Autocorrelation Test

Tests are carried out to determine whether there is a correlation between the variables of the view model and the time of its change. The autocorrelation test in this study applies the Breusch Godfrey Test type of analysis.

4. RESULTS AND DISCUSSION

4.1. Analysis Results

1. Stationary Test

Table 1. Stationary Test Result

Variable	Level	1 st Difference
GDP	0.0667	0.0030
Export	0.9124	0.0211
Import	0.9736	0.0000
PPP	0.1033	0.0000

Source: EViews 10, edited 2022

Utilizing the Augmented Dickey-Fuller (ADF) test for evaluation. All variables at the non-stationary level are known to have probability values greater than 0.05, or 5%, as shown in Table 1. While the probability value of less than 0.05 or 5% indicates that all

variables in the first difference are stationary, none of the variables in the second difference are stationary.

2. Cointegration Test

**Table 2. Cointegration Test Result
Unrestricted Cointegration Rank Test (Trace)**

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistics	0.05 Critical Value	Prob.**
None *	0.887055	92.75782	47.85613	0.0000
At most 1 *	0.567140	31.69396	29.79707	0.0299
At most 2	0.193379	8.248419	15.49471	0.4392
At most 3	0.076593	2.231184	3.841466	0.1352

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistics	0.05 Critical Value	Prob.**
None *	0.887055	61.06385	27.58434	0.0000
At most 1 *	0.567140	23.44554	21.13162	0.0232
At most 2	0.193379	6.017235	14.26460	0.6110
At most 3	0.076593	2.231184	3.841466	0.1352

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Source: EViews 10, edited 2022

Table 2 demonstrates that the value of 92.75782 for the trace statistic is greater than the critical value of 5% (47.85613). In addition, the cointegration test results are strengthened by the fact that the Maximum Eigenvalue statistic of 61.06385 is greater than the 5% crucial value (27.58434). From these results it can be concluded that the cointegration is late and that there has been a long-term balance.

3. ECM Test

Table 3. Short-Term ECM Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(EXPORT)	-0.930469	0.148558	-6.263350	0.0000
D(IMPORT)	0.490795	0.189994	2.583209	0.0163
D(PP)	-6.42E-07	5.11E-07	-1.257464	0.2207
RESID01(-1)	-0.680491	0.147768	-4.605138	0.0001
C	-0.113395	0.328010	-0.345706	0.7326

Source: EViews 10, edited 2022

Table 4. Long-Term ECM Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXPORT	-0.324523	0.175930	-1.844619	0.0765
IMPORT	-0.135802	0.264009	-0.514385	0.6113
PPP	-1.75E-06	7.51E-07	-2.332026	0.0277
C	18.74429	3.383531	5.539861	0.0000

Source: EViews 10, edited 2022

According to the results of the ECM assumptions table 3, it is explained that in the short term, the variables of exports and imports affect economic growth. It was found that the probability value for the short-term export and import variables tested was less than 0.05. In the long term, only the central government's spending variables affect economic growth. From this we can conclude that economic growth has an influence on exports, imports, and central government spending in the short and long term.

4. Classical Assumption Test

Table 5. Classical Assumption Test Result

Classic Assumption Test Experiment

1.	Normality test Jarque-Bare = 61.10743 , Prob. = 0.000000
2.	Multicollinearity Test Export = 7.984443, Import = 8.201721, PPP = 1.071163
3.	Heteroscedasticity Test (Breusch-Pagan-Godfrey) Prob. Chi-Square(4) = 0.3521
4.	Autocorrelation Test Obs*R-squared = 1.901621, Prob. Chi-Square (2) = 0.3864

Source: EViews 10, edited 2022

From the results of the normality test, it seems that it is not normally distributed with the Jarque-Bare probability value less than 0.05 (0.000000). This means that the normality test fails or does not pass.

Multicollinearity test results, seen from the value of Variance Inflation Factors (VIF). If the value of Centered VIF is less than 10, it does not experience multicollinearity. From table 5, it can be seen that all variables have a Centered VIF value of less than 10, so it can be said that the results do not occur multicollinearity.

The results of the heteroscedasticity test used the Breusch Pagan Godfrey Test. Found prob value. Chi-Square 0.3521 above 5%. This means that the test results do not occur heteroscedasticity.

The results of the autocorrelation test using the Breusch Godfrey Test. Found prob value. Chi-Square 0.3864 above 5%. This means that the test results do not occur autocorrelation.

4.2. Discussion

4.2.1. The Effect of Exports on Economic Growth

From the test results, the export variable in the short term has a probability value of 0.0000 with a coefficient value of -0.930469. This means that for every 1% increase in exports, GDP will decrease by 0.93%. As for the long term, exports have a probability value of 0.0765 with a coefficient value of -0.324523. This means that for every 1%

decrease in exports, GDP will decrease by 0.32%. Export variables affect Indonesia's economic growth in a negative direction in the short and long term.

These results are supported by Destian & Laut (2022), exports have a significant negative influence on the growth of the Indonesian economy. This result is different from the theory of economists that export activity or foreign trade will improve the economy.

4.2.2. The Effect of Imports on Economic Growth

From the test results, the import variable in the short term has a probability value of 0.0163 with a coefficient value of 0.490795. This means that for every 1% increase in imports, it will increase GDP by 0.50%. As for the long term, imports have a probability value of 0.6113 with a coefficient value of -0.135802. This means that imports have no effect on GDP. In contrast to the export variable, the import variable actually affects Indonesia's economic growth in a positive direction in the short term. This result is supported by Astuti & Ayuningtyas (2018), which demonstrates that imports have a significant positive impact on economic expansion.

4.2.3. The Effect of Central Government Expenditure on Economic Growth

From the test results, the variable of central government expenditure in the short term has a probability value of 0.2207 with a coefficient value of -6.42E-07. That is, government spending has no effect on GDP. This result is contrary to the result carried by previous studies (Lumbantobing, 2017; Mayes et al., 2015). Meanwhile, for the long term, central government spending has a probability value of 0.0277 with a coefficient value of -1.75E-06. This means that for every 1% increase in central government spending, it will decrease 1.75%.

5. CONCLUSION

5.1. Conclusion

According to the results of the research and discussion of the effect of exports, imports, and central government spending on the growth of the Indonesian economy, the export variable has a significant negative impact on economic growth in the near run. The import variable has a strong beneficial effect on the short-term growth of the Indonesian economy, but a negative effect on long-term growth.

5.2. Suggestions

In this study, the researcher realized that there were still some shortcomings, one of which was the limited data on the variables used in the study. Therefore, based on the results of the study, the researcher suggests that the government in economic growth must be improved so that the economy can run well. The government must also be able to regulate export-import activities and government spending so that there is no trade balance deficit. It is hoped that the government as a policy maker and state stakeholder in this case can create good policies and have positive values for the Indonesian economy. For the community to be able to play an active role in increasing economic growth by creating a good and stable economic climate and support the government in overcoming various existing economic problems. The study also recommends that future studies of

economic expansion, especially in Indonesia, make use of a wider variety of independent factors.

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