

The Effect of Investment, National Government Expenditure, Exports, and Imports on Indonesia's Economic Growth

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Abstract

This study aims to see the effect of investment, government expenditure, exports, and imports on Indonesia's economic growth. The type of this research is quantitative. This research was conducted using secondary data published by the World Bank. The data technique used is the documentation method. The data were analyzed through the Error Correction Model (ECM). The research period was annually from 1960 to 2018. The results of this study indicate as follows. (1) in the long term, investment negatively and significantly affects Indonesia's economic growth with a value of -0.02% with a significance value (p) < 0.05; in the short term, investment negatively and insignificantly affects Indonesia's economic growth with a value of -0.001% with a significance value (p) < 0.05. (2) In the long term, government control positively and significantly affects Indonesia's economic growth by 7.75% with a significance value (p) < 0.05; in the short term, government spending positively and significantly affects Indonesia's economic growth by 7.75% with a significance value (p) < 0.05. (3) In the long run, exports negatively and insignificantly affect Indonesia's economic growth by 0.12% with a significance value (p) < 0.05; in the short term, exports are negatively and significantly affected by -0.93% with a significance value (p) < 0.10. (4) In the long term, imports positively and significantly affect economic growth by 1.53% with a significance value (p) < 0.05; then, in the short term, imports also positively and significantly affect economic growth by 1.57% with a significance value (p) < 0.05. (5) Simultaneously, investment, government expenditure, exports, and imports positively and significantly impact Indonesia's economic growth, with an F- statistic value of 0.0000.

Keywords: Investment, National Government Expenditure, Exports, Imports, Economic Growth.

JEL classification: E22, H5, O4, C3.

Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh investasi, pengeluaran pemerintah, serta ekspor dan impor terhadap pertumbuhan ekonomi Indonesia. Jenis penelitian ini adalah kuantitatif. Penelitian ini menggunakan data sekunder hasil publikasi World Bank. Teknik pengumpulan data menggunakan metode dokumentasi. Teknik analisis data menggunakan Error Correction Model (ECM). Periode penelitian yang digunakan adalah tahunan dari tahun 1960 sampai tahun 2018. Hasil penelitian ini menunjukkan bahwa: (1) Dalam jangka panjang, investasi berpengaruh negatif dan signifikan terhadap pertumbuhan ekonomi Indonesia dengan nilai sebesar -0,02% dengan nilai signifikansi (p) < 0,05; dalam jangka pendek investasi berpengaruh negatif dan tidak signifikan terhadap pertumbuhan ekonomi Indonesia dengan nilai sebesar -0,001% dengan nilai signifikansi (p) < 0,05. (2) Dalam jangka panjang, pengeluaran pemerintah berpengaruh positif dan signifikan terhadap pertumbuhan ekonomi Indonesia sebesar 7,75% dengan nilai signifikansi (p) < 0,05; dalam jangka pendek pengeluaran pemerintah berpengaruh positif dan signifikan terhadap pertumbuhan ekonomi Indonesia sebesar 7,75% dengan nilai signifikansi (p) < 0,05. (3) Dalam jangka panjang, ekspor berpengaruh negatif dan tidak signifikan terhadap pertumbuhan ekonomi Indonesia sebesar 0,12% dengan nilai signifikansi (p) < 0,05, dalam jangka pendek ekspor berpengaruh negatif dan signifikan sebesar -0,93% dengan nilai signifikansi (p) < 0,10. (4) Dalam jangka Panjang, impor berpengaruh positif dan signifikan terhadap pertumbuhan ekonomi sebesar 1,53% dengan nilai signifikansi (p) < 0,05; kemudian dalam jangka pendek impor juga berpengaruh positif dan signifikan terhadap pertumbuhan ekonomi sebesar 1,57% dengan nilai signifikansi (p) < 0,05. (5) Secara simultan investasi, pengeluaran pemerintah, ekspor, dan impor berpengaruh positif dan signifikan terhadap pertumbuhan ekonomi Indonesia dengan nilai F-statistic sebesar 0,0000.

Kata Kunci: investasi, pengeluaran pemerintah, ekspor, impor, pertumbuhan ekonomi, ECM

Klasifikasi JEL: E22, H5, O4, C3.



INTRODUCTION

Economic growth is an important indicator in measuring the success of economic development in a country (Hapsari et al., 2020; Sukirno, 2004). It becomes a measure of the extent to which the country's economic activities will generate additional income for the community in a certain period. Economic activities use production factors to produce more valuable goods and services (Mankiw, 2013), which are measured using the GDP indicator. The economic growth rate can be calculated through an indicator of GDP development from year to year with a constant value in a certain base year. An economy is said to increase if the level of economic activity in the present is higher in value than what has been achieved in the past.

According to previous research, the authors found that four variables are often used to influence economic growth: investment variables, government expenditure, exports, and imports. Each variable has a different impact on economic growth. Theoretically, the variables of investment, government spending, and exports positively affect economic growth, whereas imports negatively affect economic growth. However, previous research has shown that several types of research do not support the theory. This can be seen from the summary of the following researches. Hasan et al. (2013); Khairunnisa et al. (2017); Lesmana & Husaini (2019); Nababan & Hayati (2019); Putri (2014); Rizky et al. (2016); Sari (2018) state that investment has a significant and positive impact on economic growth. Another study also shows that investment does not influence economic growth (Lebang et al., 2019; Lubis, 2014; Rohmah et al., 2017). Slightly different from those studies, Sebayang & Sebayang (2020) state that investment is beneficial but cannot increase economic growth in the short term.

Along with the investment variable, researchers saw a difference in the results of the government spending variable on economic growth. According to several studies, government spending has positive economic growth (Afiat, 2015; Anitasari & Soleh, 2015; Hasan et al., 2013; Rohmah et al., 2017; Suhendra & Irawati, 2016).

Meanwhile, Lebang et al. (2019) and Rohmah et al. (2017) state that government spending does not significantly affect economic growth.

In addition, several studies show different results on the export variable. Dewi (2017); Ginting (2017); Pridayanti (2014); Kirya & Yudiaatmaja (2015); Saimul & Darmawan (2020); Sutawijaya (2010) state that exports have a positive impact on economic growth. However, it was also mentioned that oil and gas exports have a negative impact on economic growth (Rahman et al., 2017; Sutawijaya, 2010). Besides, Astuti & Ayuningtyas (2018) state that reexports do not influence economic growth.

In line with the results from previous variables on economic growth, where there are differences in the results obtained in several previous studies, research on the imports variable also produces differences. Febriyanti (2019) and Prawira et al. (2019) state that imports partially do not have a significant impact on economic growth. It is consistent with the results showing that imports negatively impact economic growth (Fitriani, 2019). On the other hand, some studies state that imports positively impact growth (Ismanto et al., 2019; Saimul & Darmawan, 2020).

In addition to the differences between some studies and the theory, the authors also discover that the scope of the research, the research period, research methods, research data sources, and a combination of other variables affecting economic growth can all have an impact on the result of the study. Therefore, the authors are interested in discussing economic growth based on the value of Gross Domestic Product (GDP) to investment, government spending, exports, and imports using the Error Correction Model (ECM) that started from 1960 to 2018, with constant data year 2010, where this research aims to determine the effects that occur both in the short and long term.

LITERATURE REVIEW

Investment in Economic Growth

Investment is providing assets in the form of funds, goods, or services to individuals, corporations, and the state to maintain their

capital accumulation and achieve the objectives of production activities. Investment is part of the implementation of the national economy and a strategy to increase national economic growth, create jobs, and encourage economic development. Investment has a role in driving and spurring the economic growth of a country or region. Economists argue that investment is the driver of every process of economic development because of its ability to drive other aspects of development, such as sources of capital, technology, expanding job opportunities, and others. According to Harrod and Domar (in Jhingan, 2003), investment plays a key role in economic growth. It creates income due to demand and increases the economy's production capacity by increasing the capital stock due to supply. Therefore, if investment continues, real income and output will continue to grow.

According to Keynes, there are two determining factors in investment: interest rates and future expectations about the state of the economy. Interest rates affect investment because when interest rates are high, investors tend to transfer their capital to banks for savings since the profit earned is higher than investing. Contrarily, when interest rates fall and reach a low value, investors are more likely to prefer investing to keeping their money in a bank because it is considered that earning a profit on savings in a bank is less than earning a profit on investments. The financiers or investors will look for a place where they can make a profit, and they will choose to put their money in the most profitable one. Future economic expectations are influenced by the socioeconomic-political stability of a country and the security of the location to be targeted by investors; this is related to two aspects inherent in an investment, namely the expected rate of return and the risk of not achieving the expected return. Risk relates to the industry, company characteristics, and macroeconomic conditions, such as economic recession, political turmoil, etc. Therefore, investment is a series of activity processes to analyze various risk factors and estimate returns expected to provide the best benefits in the future. This leads to an investment decision involving commitment and sacrifice that can be tolerated in the present

(Bodie et al., 2006). In addition, technological advances will increase production efficiency and reduce production costs. Thus, technological advancements in various economic activities will encourage more investment. The higher the expense of modifying the technology, the more significant the investment.

Government Expenditure on Economic Growth

Government spending reflects government policies. If the government has set a policy to buy goods and services, government spending reflects the government costs to implement the policy (Mangkoesobroto, 1994). Government spending in the real sense can be used as an indicator of the size of government activities financed by government spending. The bigger and more government activities, the greater the government spending is concerned. Government expenditure is part of fiscal policy (Sukirno, 2004), which is a government action to regulate the course of the economy by determining the number of government revenues and expenditures each year, reflected in the State Revenue and Expenditure Budget (APBN) document for national and the Regional Revenue and Expenditure Budget (APBD) for the region. This fiscal policy aims to stabilize the price level of output and employment and stimulate or encourage economic growth.

Three factors affect government spending: tax revenues, political considerations, and economic problems. Tax revenue is related to government spending because the government can provide infrastructure, administration, and security forces through taxes. The government also uses taxes to balance various groups of people and regions' incomes and prepare for future economic development. If the government overspends, it can lead to substantial inflation, an increase in excess debt, and non-maximum profit gains. Political considerations are closely related to state security and tranquility. When the country experiences threats from outside or domestic political turmoil, the government will spend more to maintain the country's peace; the desire to accelerate development in the future also increases government spending. Another factor

is that the economic problems faced will affect government spending. As was the case in 2020, the year of the COVID-19 outbreak, required the government to increase budget allocations for medical activities and postpone many other things until the COVID-19 outbreak subsided.

Anaman (2004) states that government consumption spending that is too small will harm economic growth, proportional government spending will increase economic growth, and wasteful government consumption spending will hamper economic growth. Therefore, the government is expected to have a fast and appropriate response in dealing with economic conditions so that government spending will continue to impact economic growth positively. Even though the value of government spending is getting bigger yearly, it still positively impacts economic growth, and the wider community can also feel the impact.

Exports on Economic

Growth Export is the activity of issuing domestically produced goods and services for sale to other countries legally, both by individuals and business entities, those that are legal entities and that are not legal entities, within a certain period. According to Law Number 2 Year 2009, export is the activity of removing goods from the Indonesian customs area or services from the territory of the Republic of Indonesia. The exporter is a business entity, whether in the form of a legal entity or not, including individuals who carry out export activities.

Three factors can affect export activities: competitiveness in foreign markets, protection from other countries, and foreign exchange rates. Other countries' product competitiveness and economic conditions are the most important factors in exports. The ability of a country to sell goods abroad depends on the ability and quality of goods to compete with similar goods in the international market. A country that can produce high-quality goods at low prices will determine the level of exports achieved by that country. In addition, the income of the country's population to be exported also determines the size of the market for goods abroad. If the destination country is

experiencing a recession and the number of unemployed increases, the value of exports to that country tends to decrease. Vice versa, when the destination country is experiencing rapid progress, the number of products exported has increased. Protection policies are restrictions on imported goods carried out by countries that are export destinations; this will reduce the value of exports because the amount is limited, and even these products cannot be sold in export destination countries.

In economic theory, exports are considered an autonomous factor/variable, a factor whose function is to increase economic growth income directly. To achieve high economic growth, the policy strategy of promoting exports and encouraging appropriate investment in high technology should be comprehensively prepared and implemented in a precise and targeted manner (Adisasmita, 2013). However, export activities also need to be limited so that export activities do not reduce economic growth. This can happen if a country makes exports that depend on natural resources and the form of export goods is still raw goods. For instance, Indonesia was quite aggressive in exporting oil and gas during the 1980s. When international oil and gas prices are destroyed, Indonesia will experience an impact that reduces the value of exports and indirectly reduces macroeconomic growth. Therefore, in the future, it is hoped that Indonesia will also begin to penetrate the processed industry rather than only exporting raw materials to have a higher export value and a more stable market share than the processed industry market share.

Imports on Economic Growth

Import is the activity of entering goods or services into the customs area, namely the territory of the Republic of Indonesia, legally by importers with a particular value and a certain period. Import activities are carried out to meet the needs of domestic goods that the country itself cannot produce. It is highly dependent on public demand. However, as an importing country that tends to increase the value of imports from year to year, it is important to be aware of the negative impact

of imports on the economy, such as lowering the domestic currency exchange rate.

According to Raharja (2010), changes in demand occur due to two main reasons, namely changes in prices and changes in ceteris paribus factors (non-price factors), such as income, tastes, and others. A change in price causes a change in the quantity demanded of the good, but the change occurs only on the same curve. This is called a shift in demand along the demand curve (movement of a long demand curve). The demand curve will shift if the ceteris paribus factor, such as income, changes. If income increases, the demand curve shifts to the right. If income decreases, the demand curve shifts to the left. Hence, the quantity demanded will change if there is a price change (the good itself). A price increase will cause the quantity demanded of the good to decrease, while the price fall will increase the quantity required. In the meantime, a change in demand will result from a change in non-price factors. This change in demand is indicated by a shift in the demand curve to the right or left, which means that changes in non-price factors (e.g., consumer income increases, ceteris paribus) will cause changes in demand (increase demand), i.e., at a constant price level the quantity demanded increases. Based on this, we can see from another point of view about imports in terms of how they affect domestic community welfare. When imports of consumer goods increase, it indicates that people's welfare is also increasing, which also impacts economic growth in the country.

RESEARCH METHOD

This research is a quantitative study using time series data. This study aims to determine the effect of investment, government spending, exports, and imports on Indonesia's economic growth from 1960 to 2018 with a constant data model in 2010. This study was conducted by taking secondary data from the results of World Bank publications. Data collection from the World Bank is carried out for investment, government expenditure, export, import, and GDP data obtained through the official World Bank website (<https://data.worldbank.org>). The data used for this study are from 1960 to 2018, taken in June 2020.

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Error Correction Model (ECM)

This study uses the Error Correction Model (ECM), which is intended to determine the impact of independent variables on the dependent variable in the short term and its rapid adjustment to return to its long-term balance to time series data for cointegrating variables (Gujarati & Porter, 2009). ECM is used to identify the relationship between non-stationary variables (Hapsari et al., 2020), provided that a group of non-stationary variables has a cointegration, so ECM modeling is valid. This condition is stated in the Engle-Granger representation theory (Ariefianto, 2012).

The type of data in this study is time-series data, and the data can be stationary or non-stationary. For stationary data, modeling uses the Ordinary Least Squares (OLS) procedure, where the equation can be stated as follows:

$$PBD_t = \beta_0 + \beta_1 GCF_t + \beta_2 PP_t + \beta_3 EXP_t + \beta_4 IMP_t + \beta_5 ECT_{t-1} + \dots \dots \dots (1)$$

On the other hand, if the data is non-stationary, implementing the OLS procedure will cause a *spurious regression* phenomenon. *Spurious regression* is a phenomenon in which a regression equation is estimated to have a fairly good significance but essentially has no significance (Ariefianto, 2012). One way to identify the relationship between non-stationary variables is to perform an ECM, which is a technique for correcting short-term imbalances toward long-term equilibrium and can explain the relationship between dependent and independent variables in the present and past (Kuncoro, 2003). ECM modeling requires a cointegration requirement on a group of non-stationary variables. The ECM model equation is shown as follows:

$$DPBD_t = \beta_0 + \beta_1 DGCF_t + \beta_2 DPP_t + \beta_3 DEX_t + \beta_4 IMP_t + \beta_5 ECT \dots \dots \dots (2)$$

The ECM model specification is said to be valid if the ECT coefficient is statistically significant with a probability of less than 5%.

Stationary Test

In the time-series analysis, information on the stationary data is very important. Economic variables that continue to increase over time are examples of variables that are not stationary. In the Ordinary Least Square (OLS) method, including non-stationary variables in the equation results in the resulting standard error being biased and resulting in incorrect conclusions. Many cases found that the coefficient of estimation is significant, but = there is no relationship between those.

The stationary test aims to verify that the Data Generating Process (DGP) is stationary. Data stationarity testing can be analyzed through a formal procedure, namely the Unit Root Test or the Degree of Integration Test (I (d)). If the data is stationary, then the DGP will show constant average and variance characteristics and an autocorrelation value that is not time-invariant. The opposite happens with non-stationary data. The unit root test chosen was the Phillips-Perron Fisher Unit Root Test.

Integration Test

The integration test is carried out if the stationary test shows that the data is non-stationary. The integration test aims to determine to what degree the data will be stationary. This stage involves the reapplication of the unit root technique. The probability value that does not exceed the significance level indicates that it is possible to reject the idea that there is a unit root. This means that DGP is stationary with the degree of integration equal to one (I (1)).

Cointegration is a prerequisite for using the Error Correction Model (ECM). The cointegration relationship is observed as a long-run relationship. Although a set of variables can deviate from the equilibrium pattern, it is hoped that there will be a long-run mechanism that returns the variables referred to in the equilibrium relationship pattern. Suppose a group of variables, all of which is I (d), is suspected of having cointegration with a

certain linear form. In that case, the test is carried out by seeing whether the linear combination in question is I (d-b) (Ariefianto, 2012).

To detect cointegration, a Phillips-Perron Fisher Unit Root Test was performed on the residual (series) of regression results between variables.

Test Requirements of the Data

A good multiple regression model is a model that can meet the classical assumption test, which meets Best Linear Unavailable Estimator (BLUE). The BLUE means the normality test, multicollinearity, heteroscedasticity, and autocorrelation.

Hypothesis Testing

Partial Test (t-Test)

Partial hypothesis testing aims to determine the impact of every independent variable on the dependent variable. This test is carried out with the t-test at a significance level of 0.05 with the following conditions:

H₀: if the probability of t-Statistics is ≥ 0.05 , then H₀ is accepted.

H_a: if the probability of t-Statistics < 0.05 , then H_a is accepted.

If H₀ is accepted, it means that the tested independent variable has no significant effect on the dependent variable. If H₀ is rejected, it means that the independent variable tested significantly affects the dependent variable.

Simultaneous Significance Test (F-Test)

Simultaneous hypothesis testing uses the F test (Fisher Test). The F test aims to determine the impact of all independent variables simultaneously on the dependent variable with the following conditions:

H₀: $b_i = 0$, b_i means it does not affect H₀: $b_i \neq 0$, b_i means it does not affect.

If the F-statistical probability value $< \alpha = 0.05$, then H₀ is rejected, and H₁ is accepted, meaning that simultaneously the independent variables in the model have a significant impact on the dependent variable. If H₁ is accepted, it

means that the independent variables tested have a significant impact on the dependent variable simultaneously.

If the F-statistical probability value $> \alpha = 0.05$, then H_0 is accepted, and H_1 is rejected, meaning that the independent variables contained in the model do not significantly influence the dependent variable. If H_0 is accepted, it means that the independent variables tested together have no significant impact on the dependent variable.

Coefficient of Determination (R^2)

The coefficient of determination shows how significantly the independent variable contributed to the dependent variable. In multiple linear regression analysis, the coefficient of determination can be measured from the adjusted value of the Adjusted R-Squared or R^2 (R^2). The Adjusted R-Squared values range from 0 to 1.

RESULTS AND DISCUSSION

The analysis of times series data in this study aims to determine the effect of investment (X_1), government spending (X_2), exports (X_3), and imports (X_4) on Indonesia's economic growth from 1960 to 2018. From the results of processing times series data with estimates ECM, the regression equation, in the long run, is obtained as follows:

$$\begin{aligned} PDB_t = & 31.18598 - 0.0298INV_t + 7.75496PP_t \\ & - 0.128EKSt + 1.538IMP_t + et \\ & (4.416716) (-2.751493) (8.182873) \\ & (-0.226876) (3.185543) \dots (1) \end{aligned}$$

Based on the equation, the result of the regression model can be seen that in the long run, the constant coefficient is 31.18598. The coefficients of these variables are cumulatively positive.

Meanwhile, the short-term model equation is shown:

$$\begin{aligned} D(PDB_t) = & 4.555043 - 0.0018D(INV_t) + \\ & 7.7581D(PP_t) - 0.933D(EKSt) - \\ & 1.571D(IMP_t) + 0.370ECT \end{aligned}$$

$$\begin{aligned} & (1.473442) (-0.191062) (6.584571) \\ & (-1.699727) (3.506872) (4.182347) \dots (2) \end{aligned}$$

Based on the equation, the result of the regression model shows that in the short term, the constant coefficient is 4.555043. The coefficients of these variables are cumulatively positive.

The analysis results show that the long-term investment has a t-count of -2.751493 and a probability of 0.0081. At the 5% significance level, the investment has a negative and significant impact on GDP, with the GDP forming model as the dependent variable and the investment variable, government expenditure, exports, and imports as independent variables. Meanwhile, in the short term, it has a t-count of -0.191062 and a probability of 0.8492. At the 5% significance level, the investment has a negative and insignificant impact on GDP, with the GDP forming model as the dependent variable and the investment variable, government expenditure, exports, and imports as independent variables.

Based on the results, it can be concluded that the investment variable in the long or short term is simultaneously significant in influencing Indonesia's economic growth. Partially with the investment model (X_1), government spending (X_2), exports (X_3), and imports (X_4) as the independent variable and GDP as the dependent variable have different effects. While the long-term investment has a significant negative effect, the short-term has a negative and insignificant impact. The long-term investment coefficient is -0.029850. This means that in the long term, a 1% change in investment will result in a change in GDP of 0.02%.

The results analysis also show that in the long term, government spending has a t-count of 8.182873 and a probability of 0.0000. At the 5% significance level, the government spending variable positively and significantly impacts GDP. Meanwhile, in the short term, it has a t-count of 6.584571 and a probability of 0.0000.

The analysis results indicate that the variable of government spending, in the long term or short term, either partially or simultaneously, has a positive and significant impact on Indonesia's economic growth. The long-term coefficient

of government spending is 7.754967. It shows that government spending positively impacts Indonesia's GDP in the long term. This means that in the long term, a 1% change in government spending will increase the GDP by 7.75%. The short-term regression coefficient value of 7.758581 shows that government spending positively affects Indonesia's GDP in the short term. This means that if government spending increases by 1%, it will affect increasing GDP by 7.75%.

The analysis results demonstrate that the exports variable in the long-term t-count value is -0.226876, and the probability is 0.8214. At the 5% significance level, the export has a negative and insignificant impact on GDP. Then in the short term, it has a t-count of -1.699727 and a probability of 0.0952. At the 10% significance level, the export variable has a negative and significant impact on GDP. It shows that the export variable significantly impacts Indonesia's GDP over the long and short terms, partially or simultaneously. Partially, the exports variable has a negative effect both in the short and long term.

The long-term exports coefficient value is -0.128487. This means that in the long run, a 1% change in exports will result in a change in GDP of 0.12%. Viewed in the short term, the regression coefficient value of -0.932727 indicates that the export variable has a negative impact on Indonesia's GDP. This means that if exports increase by 1%, economic growth will increase by 0.93%.

In addition, the analysis results also show that the imports variable, in the long term, the t-count value is 3.185543, and the probability is 0.0024. At the 5% significance level, the import has a positive and insignificant impact on GDP. Then, in the short term, it has a t-count of -3.506872 and a probability of 0.0009. At the 5% significance level, the import positively and significantly impacts GDP. It shows that the imports, in the long or short term, simultaneously influence Indonesia's economic growth and partially have a positive and significant impact on influencing the economic growth of Indonesia.

The long-term import coefficient is 1.538126. This shows that imports positively

impact Indonesia's GDP in the long run. This means that in the long term, a 1% change in government spending will increase the GDP by 1.53%. The short-term regression coefficient value is 1.571396, indicating that government spending positively affects Indonesia's GDP in the short term. This means that a 1% increase in government spending will result in a 1.57% increase in GDP.

Error Correction Model

The Error Correction Model (ECM) and Error Correction Term (ECT) are inextricably linked, the ECT coefficient of -0.298573 indicates that the disequilibrium in the previous period was corrected in the current period by 0.29%. ECT shows how quickly equilibrium is reached back into long-term equilibrium, indicating that long-term and short-term adjustments to return to equilibrium have a slow rate of velocity (slow convergence) because the coefficient is negative. The amount of error correction of 0.29 indicates an adjustment to the equilibrium condition of GDP in 1 year.

The results show a negative relationship between investment and economic growth in the long term, indicating that policymaking to increase investment in physical and non-physical capital will have an impact in the long term. This means that if the government continues to increase the value of an investment, in the long run, it may have an adverse effect on Indonesia's GDP. This occurs due to several factors, including the difficulty of licensing investment in the regions, and government policies that change rapidly, as was the case in the 80s. As a result, the response of the domestic community is also volatile concerning investment. The investment value, which has not surpassed a value of more than 1000 billion US \$ as of 1995, shows that this influence is still being felt today and that the domestic community still does not believe it.

In the short term, the regression coefficient value of -0.001852 indicates that investment has a negative effect on Indonesia's GDP, although the effect is less than in the long term. This means that if investment increases by 1%, it will reduce economic growth by 0.001%. Investment

has a negative effect in the short term since it focuses on the construction of public facilities such as road construction, health facilities, and educational facilities, whose impacts cannot be obtained directly but need to wait for a particular process and time to be able to feel the impact of the investment.

The study's findings are consistent with other researches that found that investment had a negative effect on economic growth (Rini, 2012; Dinarjito, 2020; Mei et al., 2021; Rosma, 2021). However, the results of this study are inconsistent with Keynes's theory of economic growth which states that investment increases economic growth. This happened because of the trust factor of the Indonesian domestic community in the ruling government and the history of the Indonesian economy itself. The results of this study also contradict several previous researches, which contends that investment has a significant positive impact on economic growth, such as conducted by Hasan et al. (2013), Khairunnisa et al. (2017), Lebang et al. (2019), Lesmana & Husaini (2019), Nababan & Hayati (2019), Rizky et al. (2016), and Sari, (2018).

There are various ways to change and increase the confidence of the Indonesian domestic community to invest, such as the government has committed to increasingly creating a conducive investment climate, including through the provision of fiscal incentives, application of single online submission (OSS), ease of business licensing, and reorganization within the ministry of industry.

In addition, the Indonesian government has simplified the investment process by creating a Capital Investment Coordinating Board and dividing it into several branches in provinces and cities throughout Indonesia. This condition aims to overcome the problem of the length of the investment process due to incompatible government regulations. It is expected that the flow of investment to the regions will positively affect job creation, increase national productivity, and positively contribute to the national economy.

The results of this study follow Keynes's theory of economic growth which states that if government spending increases, economic

growth will increase. The study's results support the results of earlier studies, which found that government spending had a positive impact on economic growth (Afiat, 2015; Anitasari & Soleh, 2015; Hasan et al., 2013; Lebang et al., 2019; Putri, 2014; Suhendra & Irawati, 2016).

This occurs because government spending is used for the construction of facilities and infrastructure aimed at increasing the economy of the community, such as making roads for transportation, providing electricity to remote areas of the country, building educational facilities, health, security, and creating policies that support the improvement of the people's economy. Some still abuse their power and authority to take advantage of government spending for personal and groups. This is shown by the number of officials arrested by the Indonesian anti-corruption agency (KPK) for corruption. Because the Indonesian government is so crucial in the economy of Indonesia, it is expected that all parties involved in the management of government spending can monitor each other. Hence, there are no cases of corruption or other detrimental things because government spending is not following the objectives. Then, this condition is expected that economic growth can continuously increase, and more people can get the impact of the economic improvement.

Based on the research results above, there is a negative relationship between exports and economic growth in the short term, meaning that policymaking 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 reduce Indonesia's GDP. Exports hurt economic growth in the short term because raw goods dominate Indonesian exports. The value of raw goods can increase when raw materials are first processed domestically, can increase the value of exports and are exported as semi-finished goods or finished goods.

The negative effect of exports on economic growth shows that the value of exports is less than the value of imports; in other terms, it is called the trade balance deficit. Despite the unsatisfactory export performance in 2018, the

economic growth performance was considered good. Our imports are increasing rapidly, while exports are also increasing at a slower pace. Also, Indonesia's dependence on natural resource exports causes the economy to become unstable. Other factors include natural resources that have not been appropriately exploited, especially the fishing industry.

In increasing export value, domestic products must compete with other similar products. There are three important components in competition: how to produce goods better, faster, and cheaper. After that, we can win the competition on an international scale. Through the Ministry of Industry, the government is trying to increase non-commodity-based high value-added exports and industrialize priority products with global competitiveness to increase added value and create new jobs.

Five sectors are expected to drive Indonesia's exports in line with industry roadmap 4.0: the chemical industry, the textile products industry, the electronics industry, the automotive industry, and the food and beverage industry. Besides, the downstream industrial policy is expected to have a broad chain effect on the national economy, for instance, an increase in the added value of domestic raw materials, absorption of local labor, and foreign exchange earnings from exports and taxes.

The study's findings support those of earlier studies, which found a poor correlation between exports and economic growth (Nasrullah, 2014; Dara et al., 2016; Siti, 2011; Adnan et al., 2022). The results of this study contradict Keynes's theory, which states that exports positively affect economic growth. This occurs because the management of Indonesia's resources has not been maximized. So far, Indonesia has focused on exporting raw materials that have a much cheaper value than processed industrial products' export value. As a result, the value of Indonesia's exports is smaller than the value of imports. The results of this study also contradict previous researches, which stated that exports had a positive effect on economic growth (Dewi, 2017; Ginting, 2017; Pridayanti, 2014).

Based on the results, import has a positive effect on economic growth. It is because people have purchasing power, which means that if imports increase, people's purchasing power will also increase. On the other hand, when imports of raw materials and capital goods increase, this indicates the weakness of the Indonesian industrialization process in which domestic capital goods and raw materials cannot yet be provided, which leads to a sharp increase in import values when the economy increases. Additionally, it is necessary to be aware of the negative impact that may arise from the increase in import value, such as widening the current account deficit, which results in a decrease in the value of the rupiah exchange rate. Indeed, this will harm domestic consumers because it will increase the price of the goods to be purchased.

The results of this study contradict Keynes' theory, which states that imports negatively impact economic growth. This occurs because of the distinction between imports of consumer goods, which can increase economic growth, and imports of capital goods and raw materials, which will eventually have a negative effect, namely, the trade balance deficit, which, if left unchecked will become a current account deficit which results in a decrease the value of the rupiah currency. The results of this study also contrary to previous studies, which stated that partially imports do not significantly affect economic growth (Febriyanti, 2019; Prawira et al., 2019). Fitriani (2019) partial claims that imports have a negative impact on economic growth. However, the findings of this study corroborate previous studies that show imports have a beneficial effect on economic growth (Siti, 2011; Ismanto et al., 2019; Ade, 2022; Karinina et al., 2021).

CONCLUSION

Using World Bank data, constant 2010 data with units of US \$ billions, the results of the analysis show that the investment (X1), government spending (X2), exports (X3), imports (X4) in the long or short term simultaneously have a significant effect to Indonesia's economic growth.

Partially, the impacts of the investment model (X1), government spending (X2), exports (X3),

and imports (X4) as the independent variable and GDP as the dependent variable differ in influencing economic growth. First, investment (X1) has a negative impact, both in the long and short term. Second, government spending (X2), in the long or short term, partially has a positive impact. Third, the export (X3) negatively affects the short and long term. Fourth, the import (X4) in the long and short term partially has a positive impact.

The long-term partial test analysis showed that each independent variable significantly affected the dependent variable except for the export variable. In contrast, in the partial test in the short term, all the independent variables significantly affected the dependent variable at the level of significance of 10%, except for the investment variable.

In the long run, the coefficient of determination, or goodness of fit, is 0.991405. It means that the contribution of all independent variables in explaining the dependent variable is 99%. Other variables explain the remaining 0.1%. Meanwhile, in the short term, the figure is 0.581152. It means that the contribution of all independent variables in explaining the dependent variable is 58.11%. The remaining 41.89% is explained by other variables.

There should be cooperation and synergy between the central government and local governments related to investment policymaking, government spending, exports, and imports. It is also necessary to pay attention to the impact in the area where the policy is implemented, in terms of customs, social, economic, and security impacts in the region, so that all parties can feel benefited and be able to increase Indonesia's economic growth for the better and the impact can be felt by the wider community.

For further research, it is expected to increase the population variable because measuring the welfare of the community requires the population and the value of GDP. If GDP has an increase that is higher than the increase in population, it can be said that there is an increase in people's welfare. For research on economic growth, it is necessary to involve the population growth variable.

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