Considerations Affecting Indonesia's Economic Growth: Analysis of 2009-2018 Period

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Abstract

This study aims to analyze several variables that affect the growth and decline of the Indonesian economy during the period 2009-2018. The variables that affect are limited to only three, namely FDI (Foreign Direct Investment) or foreign direct investment, exports, and foreign debt. Meanwhile, the variable that causes the decline is the failure to understand the development economic theory approach to fail to apply it in the field. The type of research used is explanatory research with a quantitative approach. The location of this research was conducted at the World Bank. This study's population is the entire time-series data from FDI, exports, foreign debt, and Indonesia's economic growth. The sampling technique collects time-series data for ten years (one decade), namely the years 2009-2018 so that there are 40 samples. The data analysis used is multiple linear regression analysis. The data analysis results in this study indicate that the variables consisting of FDI, exports, foreign debt simultaneously have a significant effect on Indonesia's economic growth. Partially FDI Indonesia's economic development is being impacted significantly. Indonesia's economic development is strongly driven by exports. The effect of external debt on Indonesia's economic growth is important.

Keywords: FDI, Exports, Foreign Debt, Economic Growth.

A. INTRODUCTION

Economic expansion is a long-term financial issue, and an important phenomenon experienced by the world (Rama, 2013). The process of economic growth is known as Modern Economic Growth (Hidayat & Asmara, 2017). Economic growth is defined as a long-term per capita output growth (Pangestu & Dewi, 2017). This assumes that, in the long run, welfare is reflected in rise in per capita output, which offers a plethora of options for buying goods and services and is supplemented by estimated that globally purchasing power.

Economic growth is also related to increasing the production of goods and services in people’s financial activities. It can be said that change involves a single-dimensional development and is measured by increasing production output and income (Maddupa & Kochzius, 2014). In this situation, it indicates that national revenue has increased, as

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measured by the value of the Gross National Product (GDP) (Soenarso & Listyaningrum, 2013). As a developing country, Indonesia is actively implementing development in a planned and gradual manner, without neglecting equity and stability efforts. National development seeks to achieve high enough economic growth, which allows the realization of an increase in the standard of living and welfare of all people (Iqbal, 2015).

Indonesia's economic growth from 2009-2018 continued to fluctuate. The highest fluctuation in Indonesia's GDP occurred in 2018 at 7.98%, and the lowest was in 2013 at 4.54%. The low economic growth in 2009 was due to the global economic conditions, which were still under pressure due to the crisis, which exposed the Indonesian economy to several demanding challenges in 2013 (Rasyid & Sirajuddin, 2016). These challenges were particularly formidable in early 2013 due to the persistence of the impact of the global economic crisis, which peaked in the last quarter of 2008. Uncertainty related to the extent of the worldwide contraction and the time the global economic recovery will occur not only causes high risks. In the financial sector, but also harms economic activity in the real domestic industry. This condition resulted in heavy pressure on the monetary and financial system stability in the first quarter of 2009, while economic growth continued on a downward trend due to a significant contraction in exports of goods and services (Basri, 2013).

Exports and tax revenues play an essential role in a country's economic activity. Exports generate foreign exchange, which will be used to finance imports of raw materials and capital goods required in the production process, creating added value. The aggregation of the added value generated by all production units in the economy is the Gross Domestic Product's value. Taxes are used to carry out development in Indonesia (Brad & Plank, 2015). Apart from exports and tax revenues, the exchange rate also affects economic growth (Kisman, 2017). In an open economy, the growth rate will also be influenced by the exchange rate. The effect of exchange rates on growth rates can be seen both through the aggregate supply (AS), namely through the formation of capital and through aggregate demand (AD), namely through international trade and investment transactions (Wulandari & Narmaditya, 2017).

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The indicator used to determine a country’s economic growth is the level of Gross Domestic Product (GDP) (Fattah & Rahman, 2013). Several reasons for the use of GDP (not PNB) as an indicator for measuring economic growth, namely: (1) GDP is calculated based on the total value added (value-added) generated by all production activities in the economy. This causes an increase in GDP to reflect an increase in remuneration for the production factors used in the production process; (2) GDP is calculated based on the concept of the flow cycle (circular flow concept), namely the calculation of GDP includes the value of products produced in a certain period. This calculation does not include estimates for the previous period. The use of the flow concept in calculating GDP allows one to compare the total output this year with the year-earlier; (3) The boundary for calculating GDP is the State (domestic economy). This makes it possible to measure how economic policies are implemented by the government and encourage domestic economic activity (Dadun & Bunders, 2017).

GDP means measuring the list price of a country’s final goods and services produced by its capital over a given time period, normally a year (Fatem & Maryudi, 2018). GDP can also be used to compare several economies at once and then to study the environment over period (Rimmer & Habgood, 2013). Thus, GDP is the total national income and total expenditure on the output of goods and services in a given period. This GDP can reflect economic performance, As a result, a country’s financial results can be said to be better when its GDP becomes higher (Siagian & Masui, 2017).

In principle, economic development is funded from domestic and foreign sources of income. The primary sources of domestic revenue come from taxes, the results of natural resource management, and BUMN (Maparu & Mazumder, 2017). Meanwhile, abroad sources are generally manifested in two instruments: foreign investment and foreign assistance, loans/debt, and foreign grants. Foreign debt and foreign investment are used as sources of development financing because of the imbalance between savings and investment so that through foreign sources of financing, it is hoped that this imbalance can be resolved (Astuti & Ayuningtyasm, 2018).

If a country that makes a loan submitted to another country or an independent international institution originating from outside that country can be categorized as foreign debt. Developed countries provide foreign debt through bilateral and multilateral cooperation such as the World Bank and IMF (Bangun, 2018). Compared to obtaining funds from global and domestic private entities (banking), it is clear that foreign debt has advantages in the repayment factor due to low interest rates and relatively long repayment periods (Andriani & Wanto, 2018). This advantage makes foreign debt the most popular and accepted instrument as an alternative option for accelerating infrastructure development and overcoming the "saving-investment gap" problem experienced by developing countries. The saving-investment gap is the imbalance between domestic savings and the required investment funds (Astuti & Ayuningtyas, 2018). Debt that is appropriately managed is expected to increase the amount of domestic savings and increase investment, which can spur economic growth.
The benefits obtained from foreign debt can be used to build developing countries such as Indonesia (Risa, 2018).

FDI occurs when a company invests directly by facilitating the production process or in marketing products and services in other countries (Sayoga, 2017). With the entry of FDI, there will be a multiplier effect, such as the transfer of capital, technology, managerial capabilities, and knowledge from developed countries to developing countries (Silitonga & Mukhlis, 2017). This transfer will boost productivity and increase national output, which will impact economic growth (Rohman & Mintarti, 2018). Another impact of FDI is the creation of jobs, which is the key to reducing poverty and unemployment. It also affects social life, which creates peace and increases the population’s welfare, which can attract more and more investors (Affandi & Gunawan, 2018). FDI is projected to augment the host country’s economy by mitigating a shortage of household investment, increasing foreign currency reserves, increasing tax revenues, and improving management skills (Huda & Widodo, 2017). This situation causes the governments of developing countries in ASEAN to make every effort to attract FDI in obtaining capital resources from abroad for sustainable economic growth (Fuadi, 2018).

B. METHOD

This is a qualitative study that uses an analysis-descriptive approach. The goal of this research is to analyze all time series data on the impact of exchange rate volatility, exports, and foreign debt on Indonesia’s industrial prosperity. The population used in this study is all data on the value of FDI, total exports, total foreign debt, and the value of Indonesia’s GDP. The data used in this study are sourced from the World Bank website during the period 2009-2018. Multiple regression models are used to test the effect of two or more independent variables on one dependent variable and are generally expressed in the following equation: 

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \mu \]

where \( Y \) = economic growth; \( \alpha \) = constant; \( \beta_1, \beta_2, \beta_3 \) = regression coefficient; \( X_1 \) = FDI; \( X_2 \) = Export; \( X_3 \) = External Debt; and \( \mu \) = term error. Furthermore, the data is analyzed quantitatively with a multiple regression method using Eviews 9.

**Coefficient of Determination (R²)**

**Statistic test**

It illustrates the degree to which one independent variable influences the response variable by explaining both. The following equation is derived from the results of panel data regression using Eviews 9 program.

\[ Y = -68.69221 + 1.779797 X_1 + 54.91203 X_2 + (-54.07148) X_3 \]
Statistical Test F

The F statistical test is used to test the regression coefficient hypothesis simultaneously using the F test criteria (F test Criteria), which is often called the overall significant test to estimate the line, namely whether the independent variables are correlated or linearly related to the dependent variable together.

Decision-making

Ho: $\beta_1, \beta_2, \beta_3 = 0$: There is no significant effect of the independent variable on the dependent variable individually.

Ha: $\beta_1, \beta_2, \beta_3 \neq 0$: There is a significant effect of the independent variable on the dependent variable individually.

C. RESULT AND DISCUSSION

Foreign Direct Investment

FDI is an international capital flow in which businesses from one country establish or grow in other countries. According to Sarwedi’s research (2002), FDI is more essential in achieving the continuation of growth than aid or portfolio capital because FDI in a nation will be followed by the transfer of technology, know-how, and management. The purpose of technology transfer is to transmit production mechanisms, product design, increase company Research and Development activities, increase the quality of output produced and strengthen domestic productivity.

Export

Export-import activities are based on the condition that no country is truly independent because one needs and complements one another. The interdependence of needs has led to international trade. Each country has advantages and disadvantages. Commodities produced by a country may also not be used directly because raw materials require further processing. Other countries may need these raw materials as raw materials for their factories (Ningrum, 2017).

Foreign trade transactions, commonly known as exports and imports, are nearly simple and are nothing more than buying and selling goods between entrepreneurs residing in different countries. However, sea and land exchange often creates complex problems between people who have other languages, cultures, customs, and ways. State territorial boundaries separate specific characteristics of export activities, namely: (1) Exporters and importers of traded commodities; (2) There are currency differences between the buyer and seller countries, for example, the US dollar, British pound, or Japanese yen; (3) Sometimes there is no long and close relationship between the buyer and the seller. The knowledge of each transacting
party about the qualifications of their trading partners, including the ability to pay or
the ability to supply commodities following the sales contract, is minimal; (4) Often
there are differences in the policies of the government of the buying and selling
countries in the fields of international trade, monetary foreign exchange flows,
labeling, embargoes or taxation; (5) Between buyers and sellers, there are differences
in the level of technical mastery and terminology of international trade transactions
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Foreign debt

Foreign loans are any financing through debt obtained by the government from
providing foreign loans bound by a loan agreement and are not in the form of
government securities, which must be repaid with certain conditions. External debt is
debt or loan originating from people or institutions from other countries. Foreign
assistance is all official conventional loans and grants, either in cash or in other forms of
assets, generally shown to divert several resources from developed to developing
countries.

GDP

GDP is a national product produced by domestic production factors (owned by citizens
and foreigners) in a country. GDP is the combination of data of all products and
services produced in a given over a one-year span, excluding products and services
generated by companies owned by citizens of that country and other countries living in
the country.

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Exchange Rate

The exchange rate becomes very important if a country has to conduct economic transactions with other countries. This is because different currencies are used in that process, for example, between Indonesia and the United States. America must buy rupiah to buy goods or carry out economic activities in Indonesia, and vice versa. An exchange rate can be interpreted as the price of a domestic currency against other countries’ currencies.

The shifts in demand and supply in the exchange rate are caused by several temporary and persistent factors. These factors include (1) Increase in domestic prices for export products; (2) Increase in foreign prices for imported products; (3) Changes in the overall price level; (4) Capital flows; (5) Structural changes which are changes in the cost structure, new product discoveries, or other things that can affect the comparative advantage of a country.

Multiple Regression

If the independent variable does have a negative influence on the dependent variable, so Economic Growth has risen by -68.69221 percent, as per a constant of -68.69221 percent. The FDI variable (X1) has a coefficient value of 1.779797, which means that a 1% rise in the FDI variable would lead in a 1% increase in Economic Growth (dependent variable Y) of 1.779797%, assuming other independent variables, namely X2 and X3 are fixed (ceteris paribus). The coefficient of variable X1 is positive, so that Foreign Direct Investment has a positive relationship with Economic Growth (Y).

The coefficient value of the Export variable (X2) is 54.91203, which means that when there is an increase in the Export variable of 1%, there will be an increase in Economic Growth (dependent variable Y) of 54.91203%, assuming the other independent variables remain, namely X1 and X3 (ceteris paribus). The coefficient of variable X2 is
positive so that Exports are linked to economic growth in a good way (Y).

The External Debt variable's coefficient value (X3) is -54.07148, which means that when the External Debt variable increases by 1%, there will be an increase in Economic Growth (dependent variable Y) of -54.07148%, assuming other independent variables. Namely X1 and X2 fixed (ceteris paribus). The coefficient of variable X3 is negative so that the resulting External Debt is negatively related to Economic Growth (Y).

R² test

From the test results of the R-squared model, it can be seen that the value of R² (R-square) is 0.503624. So the contribution of the influence of the independent variables is 50.3%, while the remaining 49.7% is influenced by other factors that are not examined. This shows that 50.3% of the dependent variable's variation (economic growth) can be explained by the independent variables (FDI, Exports, and External Debt). Simultaneously, the remaining 49.7% is explained by other variables not included in the model. It is assuming that other variables are constant.

T-test

Testing of the FDI variable (X1); Based on the results of time series regression testing using Eviews 9, the tcount is 2.408067, which is greater than the ttable (0.05, df 2.110), so H0 is rejected, and H1 is accepted. This is because the t-statistic value of FDI is 2.408067, which is significant, and the FDI probability value of 0.0050 is smaller than the probability value of 0.05 so that FDI has a significant effect on economic growth.

Testing of the Export variable (X2); Based on the results of time series regression testing using Eviews 9, it was found that the tcount was 2.894115, which was greater than the ttable (0.05, df 2.110), so H0 was rejected, and H2 was accepted. This is because the export t-statistic value is 2.894115, which is significant, and the Export Prob value of 0.0018 is smaller than the probability value of 0.05 so that exports have a substantial effect on economic growth.

Testing of the variable External Debt (X3); Based on time series regression testing results using Eviews 9, the tcount is -3.069817 smaller than the ttable (0.05, df 2.110). This is because External Debt's tstatistic value is - 3.069817, which is significant, and the Foreign Debt Probability value of 0.0012 is smaller than the probability value of 0.05 so that External Debt has a substantial effect on economic growth.
**Table 1 Variables and Factor Values**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI</td>
<td>$t_{count} = 2.408067$</td>
</tr>
<tr>
<td></td>
<td>$t_{table} = 2.110$</td>
</tr>
<tr>
<td></td>
<td>Sig $t = 0.000$</td>
</tr>
<tr>
<td>Export</td>
<td>$t_{count} = 2.894115$</td>
</tr>
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<td></td>
<td>$t_{table} = 2.110$</td>
</tr>
<tr>
<td></td>
<td>Sig $t = 0.000$</td>
</tr>
<tr>
<td>Foreign Debt</td>
<td>$t_{count} = 3.069817$</td>
</tr>
<tr>
<td></td>
<td>$t_{table} = 2.110$</td>
</tr>
<tr>
<td></td>
<td>Sig $t = 0.012$</td>
</tr>
</tbody>
</table>

*Source: Data processed, 2018*

**F test**

The value of $F_{count}$ in the F test is 7.425812; Using the value of degree of freedom ($df1$) = $k - 1 = 3 - 1 = 2$ and ($df2$) = $n - k = 20 - 3 = 17$. Using a significance level of 95% ($\alpha = 5\%$); From the results of regression analysis, it is obtained that the value of $F_{count}$ is greater than $F_{table}$, namely 7.425812 > 3.59, which means that $H_4$ is accepted and $H_0$ is rejected. Thus, it can be concluded that FDI, exports, and Foreign Debt together significantly influence Indonesia’s Economic Growth.

**Table 2 F Test Results**

<table>
<thead>
<tr>
<th>Value</th>
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<tbody>
<tr>
<td>$F_{count} = 7.425812$</td>
</tr>
<tr>
<td>$F_{table} = 3.59$</td>
</tr>
<tr>
<td>Sig $F = 0.000$</td>
</tr>
</tbody>
</table>

*Source: Data processed, 2018*

**FDI, Exports, and Foreign Debt Simultaneously Influence Indonesia’s Economic Growth**

Based on the table F test results can be seen in table 2, it is known that the value of FDI ($X_1$), exports ($X_2$), and foreign debt ($X_3$) on Indonesia’s economic growth ($Y$) results in a significant probability value of 0.000 which is less than the substantial value used, namely amounting to 0.05 (5%). Therefore hypothesis 1 in this study is accepted where the importance of FDI ($X_1$), exports ($X_2$), and foreign debt ($X_3$) have a significant effect on economic growth ($Y$) together. FDI has a partial impact on Indonesia’s economic growth.

This is indicated by the FDI $t_{count}$ ($X_1$) of 2.408067 and Sig $t <0.05$. This study’s results are due to the development of FDI in Indonesia, which is still very volatile. This can also be seen from the drastic decline in FDI in 2015, amounting to 19.779 billion USD.

and in 2016 to 4.142 billion USD. So that FDI in Indonesia cannot be used optimally to increase economic growth. Many factors make Indonesia currently less attractive to FDI than other countries. These factors are the condition of infrastructure (such as roads, airports, and seaports, telecommunications and lighting) and poor logistics, low quality (education/skills, discipline, and work ethic), low human resources, unfavorable economic policies (overlapping and inconsistent), lack of legal certainty, inefficient bureaucracy, corruption at all levels of society and technological advances that no longer require a factory to be located in an area where raw materials are available due to synthesis or relatively lower transportation costs.

Other problems outside of these regulations, such as unstable political conditions, simultaneous demonstrations, and individuals who often profit from licensing, have affected the business climate. Besides, the investment recorded by BKPM did not absorb a lot of labor. The capital-intensive achievable average is tertiary. Thus, it is very far from the quality of economic growth that results from capital-intensive investments. This result is in line with the neoclassical theory that FDI will provide more job opportunities, more comprehensive technology transfer, thereby increasing competition at the national level.

Indonesia’s economic growth is influenced in part by exports.

Exports have a positive and significant effect on Indonesia’s economic growth, according to the result of t-test statistical calculations with the result of $t = 2.894115$, where the result is greater than $t$ table with a value of 2.110. The $Sigt$ value, which is 0.000, is smaller than $\alpha$ ($0.000 < 0.05$). This shows that exports provide good news for the Indonesian economy, especially for APBN revenues, and improve the trade balance performance.

Foreign debt has a partial effect on Indonesia’s economic growth

Based on the results of t-test statistical calculations, it can be seen that foreign debt has a positive and significant effect on Indonesia’s economic growth. This is indicated by the $t$ count of 3.069817, and this value is greater than the $t$ table ($3.069817 > 2.110$) or $Sigt 0.000 < 0.005$. Based on this result, it can also be seen that the value of foreign debt is very high, and its GDP growth continues to increase. So it can be concluded that Indonesia’s economic growth is more influenced by foreign debt. Utilization of foreign debt in helping developing countries overcome savings or investment gaps and imbalances in the balance of payments Indonesia’s condition, which is still classified as a developing country, requires a source of capital funds to carry out development.

D. CONCLUSION

Guided by the results of statistical tests and discussion, the following conclusions can be drawn: (1) FDI, exports, and foreign debt simultaneously influence Indonesia’s economic growth for the 2009-2018 period; (2) For the period 2009-2018, FDI had such a negative and significant impact on Indonesia’s economic growth.
development. (3) For the period 2009-2018, exports had a significant positive impact on Indonesia’s economic growth; (4) For the period 2009-2018, external debt has had a positive and significant impact on Indonesia’s economic growth. (5) The findings of the study show that exports, tax receipts, and the exchange rate all have a strong and important effect on Indonesia’s economic growth.

REFERENCES

