EFFECT OF EXPORT-IMPORT OF OIL AND GAS COMMODITIES ON FOREIGN EXCHANGE RESERVES IN INDONESIA

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Abstract
Foreign exchange reserves are an important tool and source of financing for the state for national development. Changes in the value of the country's foreign exchange reserves are influenced by several factors, one of which is export-import activities. This study aims to analyze the effect of oil and gas exports and imports commodity on Indonesia's foreign exchange reserves in 2013-2022. The analytical method used in this study is multiple linear regression analysis. The data source used is a secondary time series data source obtained from the Central Bureau of Statistics (BPS). Data processing is done with the help of a computer application, namely the SPSS program. The results of the study show that Oil and Gas Exports (X1) and Oil and Gas Import Variables (X2) have a significant effect on Indonesia's Foreign Exchange Reserves for 2013-2022.

Keywords: Foreign Exchange Reserve, Export Import, Oil And Gas

INTRODUCTION
The Indonesian government has determined infrastructure development as the main pillar of national development. Infrastructure development aims to improve inter-regional connectivity and accelerate the movement of goods and services, so as to maintain productivity stability and industrial sector competitiveness. The availability of adequate infrastructure development is expected to encourage investment and economic growth, especially in areas that have not been reached, as well as improve people's welfare.

One of the sources of the Indonesian state budget to realize the country's development is through foreign exchange. Foreign exchange reserves are a crucial asset for a country, which are used to finance the country's needs, including in financing national development. In this regard, the government emphasizes that strengthening foreign exchange reserves is a key element in realizing national economic stability.
The country's foreign exchange is a parameter to measure whether or not a country's economy is vulnerable in facing global economic problems, as well as to see how far the country is able to be involved in international trading activities. Efforts to increase foreign exchange reserves were carried out by strengthening the international trade sector, maintaining rupiah exchange rate stability, suppressing inflation, and protecting the budget deficit. (Bidang Humas Sekretariat Kabinet RI, 2018).

International trade is a buying and selling activity that involves the interaction of two or more countries. According to Law Number 7 of 2014 concerning Trade, it is explained that Cross-Country Trade is trade that includes export or import activities of goods and/or trade in services outside the borders of the country. In international trade, countries whose role is to offer goods/services are referred to as exporters, and countries which accept offers of goods/services from other countries are referred to as importers. Generally, a country transacting in the international market intends to fulfill the country's basic needs by buying goods/services from other countries (Diphayana, W, 2018).

One of the ways to increase the country's foreign exchange reserves is from export and import activities. The amount of exports that exceeds the number of imports of a country will help increase the country's foreign exchange reserves. The foreign currency obtained from exports results in a stimulus for the country's foreign exchange. The government seeks to increase the country's foreign exchange reserves by expanding domestically produced goods abroad and making loans to the state. The stipulation of rules related to the management of the state's foreign exchange is contained in Law no. 3 of 2004. In article 13 of the law, explains that the Central Bank in order to fulfill the implementation of monetary policy is given obligations related to the management of the country's foreign exchange reserves, this includes licensing in conducting foreign exchange transactions and foreign exchange loans. Good management of foreign exchange reserves can be used to maintain volatility in the rupiah exchange rate, reduce demand for products and finance imports, so that the stability of the rupiah exchange rate can be maintained and attract foreign investors to provide their capital for domestic development (Departemen Komunikasi Bank Indonesia, 2019).

One of Indonesia's leading products with high selling value and international market oriented commodities is the oil and gas sector. The increasing needs of the people related to the use of petroleum has attracted the attention of many countries. Countries that have supplies of pure oil (crude oil), get high profits, because the industrial and transportation sectors need oil for their production operations, so this will help the country receive income in the form of foreign exchange through oil exports (Direktorat Jenderal Minyak dan Gas Bumi, 2023).
Table 1
Export and Import Data for Oil and Gas Commodities and Indonesia's Foreign Exchange Reserves for 2018-2022

<table>
<thead>
<tr>
<th>Year</th>
<th>Export of Oil and Gas (Juta US$)</th>
<th>Import of Oil and Gas (Juta US$)</th>
<th>Foreign exchange (Juta US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>17 171,7</td>
<td>29 868,8</td>
<td>120 654,27</td>
</tr>
<tr>
<td>2019</td>
<td>11 789,3</td>
<td>21 885,3</td>
<td>129 183,28</td>
</tr>
<tr>
<td>2020</td>
<td>8 251,1</td>
<td>14 256,8</td>
<td>135 897,00</td>
</tr>
<tr>
<td>2021</td>
<td>12 247,4</td>
<td>25 529,1</td>
<td>144 905,38</td>
</tr>
<tr>
<td>2022</td>
<td>16 019,7</td>
<td>40 416,4</td>
<td>137 233,27</td>
</tr>
</tbody>
</table>

Source: BPS Indonesia 2023

Judging from the data table above, it is known that the percentage of the value of oil and gas exports and imports of Indonesia's foreign exchange reserves is unstable (fluctuating). In 2018 oil and gas export commodities reached 17,171.7 million US, but experienced a significant decline in 2019-2020. The lowest point in oil and gas exports occurred in 2020 of 8,251.1 million US, this was a side effect of the Covid-19 pandemic so that the trade sector weakened. In 2021, the economy will slowly recover and oil and gas exports will increase by 12,247.4 million US, then in 2022 it will increase again to reach 16,019.7 million US.

In 2022 oil and gas imports experienced a significant increase of US$40,416.4 million compared to the previous period, namely 2018-2021 which was only around US10,000-30,000 million. The increase in oil and gas imports was caused by the increasing need for fuel products in line with the increasing population which has also led to an increase in the number of vehicles, and the low production of refined oil from domestic refineries. The high value of imports causes foreign exchange reserves to decrease because import financing uses foreign exchange reserves. A country's foreign exchange is in the realm of stability if the country is able to meet import needs within a minimum period of 3 months. In connection with the data obtained from table 1, it shows that imported commodities will continue to increase in 2021-2022 when compared to the previous period, namely 2018-2020.

The foreign exchange reserves in 2019 increased by 129,183.28 US when compared to the total foreign exchange reserves in 2018. Then in 2020 there was another increase of 135,897.00 US. In 2021 it will be in a fairly high position of 144,905.38 US. In 2022 foreign exchange reserves decreased by 13,233.27 US, this was due to Bank Indonesia's intervention throughout 2022 to maintain the stability of the rupiah exchange rate. Whereas in the previous period, the trade balance was in a surplus condition. This positive
performance should increase the country's foreign exchange reserves

In essence, the main purpose of providing the country's foreign exchange reserves is to finance government foreign loans and the cost of importing goods/services. If the total state debt to foreign countries continues to occur, it will cause a decrease in reserves foreign exchange. The depletion of foreign exchange reserves to the deficit stage indicates that the country's economy is not running stable and the level of imports will be high because it is unable to meet domestic demand. Along with fluctuations in the value of the country's foreign exchange, the final result obtained is that there are factors that cause changes in value related to intervention conditions and trade balance deficits. The central bank establishes an interest rate policy to regulate so that the rupiah interest rate does not weaken against international interest rates. The weakening of the domestic foreign exchange was also caused by the uncertainty of investors in providing this. This was influenced by the tapering policy (withdrawal of monetary stimulus) imposed by the US state. Based on the explanation on this background, the researcher is interested in further studying the "Effect of Exports of Oil and Gas Commodities on Indonesia's Foreign Exchange Reserves". This research was conducted to see how the influence of exports and imports of oil and gas on Indonesia's foreign exchange.

LITERATURE REVIEW

Export is a trading activity with an income system derived from the sale of goods or services in international markets. The Indonesian Statistics Agency explained that export is a form of trade by moving commodity products beyond the Indonesian Customs zone in accordance with applicable rules and regulations. The customs area is the territory of Indonesia which includes air, land and sea areas within the zee and continental shelf (Kementerian Perdagangan, 2022).

Net exports are the difference between total exports and total imports of a country. Export values that exceed import values will make net exports in positive conditions. Positive net exports will help the country to increase revenue and gain a bigger profile than spending. Exports are an effort to minimize the impact of the weakening domestic market. When the domestic market experiences decreased demand or fragility, a country can export goods or services to international markets to generate income and increase production. Thus, the country can maintain economic stability and employment (Bakari S & Mabrouki M, 2017). Exports are also beneficial for reducing dependence on the domestic market and increasing economic diversification. This can help reduce the risk of domestic market fragility, as well as open up opportunities for the development of the national economy. gain insight into product marketing procedures in international markets (Pratiwi, D. S., Busairi, A., & Junaidi, A, 2018).

Oil and gas is an export commodity with the highest profit. 'Liquid gold' is the designation for this commodity because it has a very high selling value. Sales of oil and gas commodities in the international market of the country use deposits in foreign currency. Oil and gas exported by Indonesia are raw goods that foreign companies will later process into fuel oil (BBM), diesel fuel, LPG, asphalt building materials, kerosene, paraffin, avgas, avtur, and cosmetic products such as hair dyes and essential oils. (Direktorat Jenderal Minyak dan Gas Bumi, 2023).

The Directorate General of the Ministry of Energy and Mineral Resources (ESDM), informed that Indonesia's oil supplies to meet future needs are up to 9.5 years and gas supplies
are around 19.9 years. The abundance of crude oil supplies in Indonesia brings benefits to the domestic market because it attracts the attention of the global market to buy oil in Indonesia. The destination country for Indonesia's oil commodity exports with the most orders was Japan with an oil volume of 3.7 million tons or USD 1.6 billion. Then followed by Thailand with a total ordering volume of oil of 2.2 million tonnes or 875.9 million USD. The US volume was at 2 million tons or 932 million USD. Singapore achieved a volume of 1.9 million tons worth USD 770 million. Australia with a total volume of 1.7 million tons valued at 675 million USD. China amounted to 1.6 million tons worth 631.2 million USD. If oil and gas export sales are stable, it will bring benefits to the country because it increases the country's income and foreign exchange reserves (Direktorat Jenderal Minyak dan Gas Bumi, 2023).

Imports are purchases of goods from other countries (overseas) to meet the demand for goods that cannot be produced domestically. According to Law no. 17 of 2006 concerning Customs explains that imports are cross-border product diversification activities into customs areas. This product complies with the basic legal provisions for imported products PMK-182/PMK.04/2016 (Parhusip, M., 2020).

Imported commodity goods are consumption goods that cannot be produced or have been produced by the state, but cannot meet the needs of the people (Diphayana, W, 2018). Indonesia is one of the countries that imports oil and gas commodities. The abundant supply of oil in Indonesia does not rule out the possibility of Indonesia importing from other countries. This situation was due to the increase in national oil demand which was not accompanied by an increase in national oil production.

Based on the report from the Central Statistics Agency, it was informed that the condition of Indonesia's oil import volume in the Jan-Sept 2022 period was 30.06 million tons. This number increased by 16.89% when compared to last year. Crude oil commodity amounted to 11.23 million tonnes, an increase of 7.7% from the 2021 figure. Slightly compared to refined oil imports of 18.84 million tonnes, an increase of 23.15% from the 2021 amount. Indonesian oil import prices in the 2022 period valued at US$27.17 billion or the equivalent of Rp.407 trillion (exchange rate of Rp. 15,000 per US dollar). This consisted of refined oil imports worth US$18.54 billion and US$8.62 billion for crude oil imports. This is due to the swelling demand for fuel among the public in line with the increase in the number of vehicles in Indonesia (Central Statistics Agency (BPS), Value of Oil and Gas-Non-Oil Gas Imports (Million US$) 2013-2022, 2023).

As a form of effort to increase national economic development, the source of the financing comes from the country's foreign exchange. Management of the country's foreign exchange is carried out in a transparent and strategic manner in order to expand international trade flows, because independent body can dysfunction effectively to represent governance mechanism (Islamudin 2022), foreign investment, and settlement of basic obligations to parties abroad. The crucial role of foreign exchange for the state is used to finance national development and meet the country's needs. This is in accordance with provisions such as the burden of state debt to other countries and foreign exchange reserves. This can serve as a reference for the government in establishing foreign exchange regulations in accordance with the realm of economic development policies (General Explanation of Law Number 24 of 1999 concerning Foreign Exchange Flows and Exchange Rate Systems).
Bank Indonesia as the monetary authority has the duty to regulate the supply of the country's foreign exchange reserves or reserve assets. Foreign Exchange Reserves are understood as foreign assets guaranteed by the central bank for financing purposes and foreign obligations of the country concerned. Foreign exchange reserves act as funds to cover imbalances in the balance of payments, follow up on interventions in the market as protection to maintain exchange rate stability, and defend the country's economy against Indonesia's main obligations.

Foreign exchange reserves can be in the form of currency (coins and paper money) or demand deposits (securities, money orders, checks). Sources of foreign exchange earnings come from foreign investment, debt, foreign savings, and the provision of international services. Changes in the value of a country's foreign exchange are caused by factors such as the rupiah exchange rate, inflation, exports and imports.

RESEARCH METHODS

The research method used to analyze data is a quantitative method. Quantitative research is a research method using concrete data in the process of testing data, research data is in nominal form which will be measured using statistics as a calculation test tool. Testing is carried out based on the problems studied to produce a conclusion (Burhan, I., Afifah, N., & Sari, S. N, 2022).

The data in this research comes from secondary data. The data collection method uses a no-participant observation system, including books, reports, and economic literature. The data used is a time series from 2013-2022 related to Oil and Gas Export - Import data, as well as Indonesia's State Foreign Exchange data obtained from the annual accounting recap published on the official website of the Indonesian Central Statistics Agency (BPS). The process of calculating the data using multiple linear regression analysis tool to determine the effect of the two variables between the dependent variable and independent variable. The regression equation for the effect of the value of oil and gas exports and imports on foreign exchange reserves is as follows

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon \]

Information:
\[ Y \] = Foreign exchange reserves
\[ \alpha \] = Constant
\[ \beta_1, \beta_2 \] = Regression Efficiency
\[ X_1 \] = Oil and Gas Exports
\[ X_2 \] = Oil and Gas Imports
\[ \varepsilon \] = error terms

RESULTS OF RESEARCH AND DISCUSSION

In this study, Multiple Linear Regression Analysis is used to determine the influence of the independent variables namely Oil and Gas Exports and Oil and Gas Imports on the
dependent variable or Indonesia's Foreign Exchange Reserves

Table 2
Multiple Linear Regression Analysis Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>13738468.300</td>
<td>727222.056</td>
<td>18.892</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X1 = Ekspor Migas</td>
<td>-29.279</td>
<td>6.384</td>
<td>-1.561</td>
<td>-4.586</td>
<td>.003</td>
<td>.256</td>
</tr>
<tr>
<td></td>
<td>X2 = Impor Migas</td>
<td>12.893</td>
<td>4.694</td>
<td>.935</td>
<td>2.747</td>
<td>.029</td>
<td>.256</td>
</tr>
</tbody>
</table>

Dependent Variable: Y = Foreign Exchange Reserves
Source: Data processed in 2023

Oil and Gas Imports (X2) are zero, then the average value of Foreign Exchange Reserves (Ŷ) is 13738468.300 percent. This value still exists based on or comes from the influence of other variables that also influence the results of the value of Foreign Exchange Reserves but are not included in the regression model such as the rupiah exchange rate, interest rates, and interest rates or it could also be the results of other export and import activities.

a. Oil and Gas Export (X1)
The regression coefficient of the Oil and Gas Export variable (X1) is -29,279 indicating that the coefficient produces a negative stronghold value, meaning that if Oil and Gas Exports (X1) experiences an increase of 1 percent, the average value of Foreign Exchange Reserves (Ŷ) will weaken by 29,279 percent. Assuming the value of Oil and Gas Imports (X2) does not change/fixed

b. Oil and Gas Imports (X2)
The regression coefficient value of the Oil and Gas Import variable (X2) is 12,893 indicating that the coefficient is in a positive kudu, meaning that if the value of Oil and Gas Imports (X2) increases by 1 percent, it will be followed by the value of
Foreign Exchange Reserves (Ŷ), which also increases by 12,893 percent, with assuming the value of Oil and Gas Exports (X1) does not change or remains the same.

This test is conducted to determine whether a data can be considered as a population with normal distribution or not, so that it can be used in certain statistical analyzes such as hypothesis testing or regression analysis. The following data is processed using SPSS 26.0 software. The normality test can be proven by the SPSS P-PLOT graph below:

![Figure 1 Results of Normality Test](image)

Based on the graph above, it can be seen that the P-Plot graph shows that the dots are around the diagonal line or the data distribution is around the diagonal line. This means that the data is said to be normally distributed.

Multicollinearity Test
The multicollinearity test is used to show a strong correlation or relationship between two or more independent variables in a multiple regression model (Yuliara, I. M, 2016). This test aims to determine the unusualness between the independent variables. Using SPSS 26.0 output, the following results are obtained:

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Tolerance</td>
</tr>
</tbody>
</table>

Table 3
Multicollinearity Test Results
Based on the analysis results in Table 3, it is stated that the value of the VIF coefficient in the oil and gas export variable (X1) is 3.909, oil and gas imports (X2) is 3.909, while the tolerance value for the oil and gas export variable is 0.256 and the oil and gas import variable (X2) is 0.256. Because the VIF value is at a value < 10 and a value > 0.10 and the final result is that there is no multicollinearity in the regression model.

This test is used to find out that in the regression equation there is an inequality of variance. Using SPSS 26.0 output, the following results are obtained:

![Figure 2](image_url)

**Figure 2**
Heteroscedasticity Test Results

Heteroscedasticity can occur when the residual variance varies at the independent variable level. From the test results in the figure above, it is known that the points spread randomly, both at the top of the number 0 and at the bottom of the number 0 from the vertical axis or Y axis. In this way, it can be concluded that there is no symptom of heteroscedasticity in this regression model.

Autocorrelation testing occurs when the residual value at a certain time is related to the residual value at a previous or subsequent time. Autocorrelation test can be done by looking at the Durbin-Watson value at the output of SPSS 26.0.

**Table 4**

**Autocorrelation Test Results**
Model | R  | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson
--- | --- | --- | --- | --- | ---
1  | .890 | .793 | .733 | 762234.550 | 2.419

a. Predictors: (Constant), X2 = Oil and Gas Import, X1 = oil and Gas Export
b. Dependent Variable: Y = foreign exchange reserves

Source: Processed Data 2023

From the table above it can be seen the value of:

\[ EW = 2.419 \]
\[ DU = 0.69 \]
\[ DL = 1.64 \]
\[ \text{4 - DU} = 4 - 0.69 = 3.31 \]
\[ \text{4 - DL} = 4 - 1.64 = 2.36 \]

The calculation above shows that the Durbin-Watson value is 2.419. From these figures it can be obtained that 2 < DW < 4 - DU or 2 < 2.419 < 3.31, so it can be concluded that the data used by the researchers did not detect any autocorrelation disturbances.

4.2 Simultaneous test

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>d.f</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>15543693850 00</td>
<td>2</td>
<td>77718469250 00</td>
<td>13.37</td>
</tr>
<tr>
<td></td>
<td>0.00</td>
<td>0</td>
<td>.00</td>
<td>7</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>40670105670 00</td>
<td>7</td>
<td>5810015096 00</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>0.00</td>
<td>0</td>
<td>.00</td>
<td></td>
<td>.00</td>
</tr>
<tr>
<td>Total</td>
<td>19610704420 00</td>
<td>9</td>
<td></td>
<td></td>
<td>.00</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Y = Cadangan Devisa
b. Predictors: (Constant), X2 = Impor Migas, X1 = Ekspor Migas

Source: Processed Data 2023

Simultaneous test (F test) is used to test the significant effect of independent variables, namely Oil and Gas Exports (X1) and Oil and Gas Imports (X2) simultaneously affect the variable bound, namely foreign exchange reserves (Y). Based on the output of the program,
the SPSS value of $F_{\text{count}} = 13.377 > F_{\text{table}} = 2.8$, then $H_0$ is rejected. The results of these calculations show that Oil and Gas Exports ($X_1$) and Oil and Gas Imports ($X_2$) simultaneously affect foreign exchange reserves. With an $R^2$ value of 0.793, it indicates that 79 percent of fluctuations in the country’s foreign exchange reserves are influenced by the fluctuations in oil and gas exports and imports.

Tabel 6
Hasil Uji Parsial (T)

<table>
<thead>
<tr>
<th>Coefficientsa</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>13738468.300</td>
<td>727222.056</td>
<td>18.892</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>$X_1 = \text{Ekspor Migas}$</td>
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<td>6.384</td>
<td>-1.561</td>
<td>-4.586</td>
<td>.003</td>
</tr>
<tr>
<td>$X_2 = \text{Impor Migas}$</td>
<td>12.893</td>
<td>4.694</td>
<td>.935</td>
<td>2.747</td>
<td>.029</td>
</tr>
</tbody>
</table>

a. Dependent Variable: $Y = \text{Cadangan Devisa}$

Source: Data Processed 2023
Hypothesis testing or t-test is carried out to determine the effect of the independent variables on the dependent variable.

Effect of Oil and Gas Exports on Foreign Exchange Reserves

Based on the table above, it shows that the calculated t value for the interest rate (X1) is equal to -4.586 (T count = -4.586 > T table = 2.365) with a sig t of 0.003 below 10%. Thus Ho is rejected and Ha is accepted, meaning that the oil and gas export variable (x1) has a negative and significant effect on Foreign Exchange Reserves (Y) in Indonesia in 2013-2022. The results of this study are also supported by previous research conducted by Rosiyadi in 2020, namely research discussing the influence of oil and gas exports and imports on Indonesia's trade balance. The results of the study show that oil and gas exports have a positive and significant influence on the trade balance. This shows that oil production in Indonesia has decreased every year, so that oil exports have also weakened. However, the country's foreign exchange reserves are not always due to oil exports. The increase in non-oil and gas commodities such as mineral fuels can also be a driving force for increasing the country's foreign exchange reserves.

Effect of Oil and Gas Imports on Foreign Exchange Reserve

Based on the table above, it shows that the calculated t value for oil and gas imports (X2) is 2.747 (T count = 2.747 > T table = 2.365) with a sig t of 0.29 above 10%. Thus Ho is accepted and Ha is rejected, meaning that the variable Oil and Gas Imports (X2) has a positive and significant effect on Foreign Exchange Reserves (Y) in Indonesia in 2013-2022. The results of this study are also supported by previous research conducted by Ahmad and Dewi in 2019 who conducted research on analysis Factors Affecting Oil and Gas Foreign Exchange in Indonesia. The results of the study illustrate that oil and gas imports have a significant influence on oil and gas foreign exchange in Indonesia (Ahmad, J. & Dewi, R, 2019). In fact, import financing always comes from the country's foreign exchange, if the demand for foreign goods increases, the country's foreign exchange supply will decrease and weaken. The high value of imports of goods from other countries was triggered by increasing domestic consumption power followed by the availability of quality imported goods and cheaper prices compared to domestically produced goods which can make consumers prefer to buy imported goods. However, imports can also help countries gain access to the raw materials and components of production needed to produce goods for export. Thus, imports can help increase production and exports, which in turn can increase the country's foreign exchange. It should be remembered that an uncontrolled and sustainable increase in imports can lead to a continuous trade deficit and threaten the stability of the country's economy. Therefore, it is important for the country to carefully consider the impact of imports on the country's economic stability and foreign exchange reserves.

CONCLUSION AND ADVICE

1) Based on multiple linear regression testing, the regression coefficient value of the oil and gas export variable (X1) is 29.279 which indicates that an increase in oil and gas exports by 1 percent will cause a decrease in the country's foreign exchange by
29,279 percent. The regression coefficient value of the oil and gas import variable (X2) is 12,893 which indicates that every 1 percent increase in the amount of oil and gas imports (X2) will cause an increase in the value of foreign exchange by 12,893 percent.

2) Based on the F test, it can be seen that the variables of oil and gas exports and imports simultaneously have a significant effect on Indonesia's foreign exchange reserves. These results indicate that the first hypothesis proposed in this study is significant.

3) Based on the t test, the export variable has a negative effect on Indonesia's foreign exchange in 2013-2022, while the import variable has a positive effect on Indonesia's foreign exchange reserves in 2013-2022.

Suggestion

a. The government can strengthen regulations related to export implementation by establishing policies regarding letter of credit (L/C) regulations for export activity mechanisms. 100% of the income resulting from export transactions becomes state income in the form of foreign currencies such as dollars or funds stored in government banks abroad. Following up on the foreign exchange earning system, if the state's foreign exchange earnings are given lower by the contractor to the state, the contractor will receive an administrative fee sanction of 0.5% of the total foreign exchange. This rule is used as state protection to maintain foreign exchange stability and as an effort to increase income foreign exchange. The government needs to maintain and increase the stability of the Rupiah against the Dollar while at the same time giving more attention to policies related to the Exchange rate because even though the strengthening of the Dollar Exchange Rate (Setiawati, Muchholifah et al. 2020)

b. Control of imported goods is carried out as a form of strengthening the country's foreign exchange. One of these efforts is to reduce imports in the EMR sector by increasing domestic production. The government can provide incentives and support to increase domestic production and processing of mineral resources. The import quota restriction for the EMR sector is carried out in order to provide an opportunity for the national industry to play a more active role in every project in the national energy sector. In addition, to minimize import dependency on oil and gas commodities, Indonesia must press the target of 1 million barrels of oil in 2030. The government can work on this by building cooperation with PT Pertamina (Persero) and carrying out production of fuel refineries in various regions such as including the Balikpapan Refinery, Dumai Refinery, Balongan Refinery and Plaju Refinery.
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