

FOREIGN EXCHANGE RATE AND INTERNATIONAL TRADE: A CASE OF INDONESIA IN OCTOBER 2023

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Abstract

The weakening of the rupiah exchange rate, especially at the end of 2023, is mainly caused by global factors such as the increase in interest rates by the Fed, conflicts in Ukraine and the Middle East, and the strengthening of the US economy. Based on empirical data in 2017-2022, the relationship between the rupiah exchange rate against the USD and the volume of exports and imports is positive. Thus, the depreciation of the rupiah exchange rate increases the volume of exports and imports simultaneously. This is due to the close relationship between the value of exports and the value of imports, one of which is caused by the proportion of raw material imports which reaches 75% of the total import value. In addition, it is also caused by many other factors besides the rupiah value that affect imports and exports. The decline in the rupiah exchange rate is predicted to continue until 2024 given the predictions of the US economy that continues to increase and the increase in interest rates by the Fed. Although, the rupiah is predicted to reach a level of IDR 16,000/USD, Indonesia's foreign exchange reserves are indicated to continue to be at a safe level as assuming imports and external debt do not change significantly, the foreign exchange reserves would need to shrink to below USD 67.45 to bring Indonesia to an unsafe point. The weakening of the rupiah, which is expected to continue until 2024, will also increase inflation.

Keywords: Foreign Exchange Rate; International Trade

Introduction

The rupiah value weakened on Monday (23/10/2023). The weakening of the rupiah was due to external and internal factors. The rupiah exchange rate weakened 61 points to Rp 15,933 from its previous position at Rp 15,889 at the close of trading on Monday. Concerns about the widespread impact of the Israeli occupation of Palestine are said to be the cause of the rupiah's weakening in recent times. Geopolitical conflicts in the Middle East trigger high financial market volatility (Republika, 2023).

The Minister of Finance explained the cause of the weakening of the rupiah against the US dollar. She said that the weakening of the rupiah was the result of global conditions, including high inflation in America and economic conditions that are still quite strong. This signals or is read by the market that higher for longer will occur and this is what causes a lot of capital flowing back to the US. This condition also caused the dollar index to strengthen at 106, up from 93 previously. The Minister of Finance said the Ministry of Finance will continue to synchronize monetary and fiscal policies so that the impact of conditions in the United States on the rupiah exchange rate, inflation, and domestic economic growth can be mitigated and minimized (Saputri, 2023).

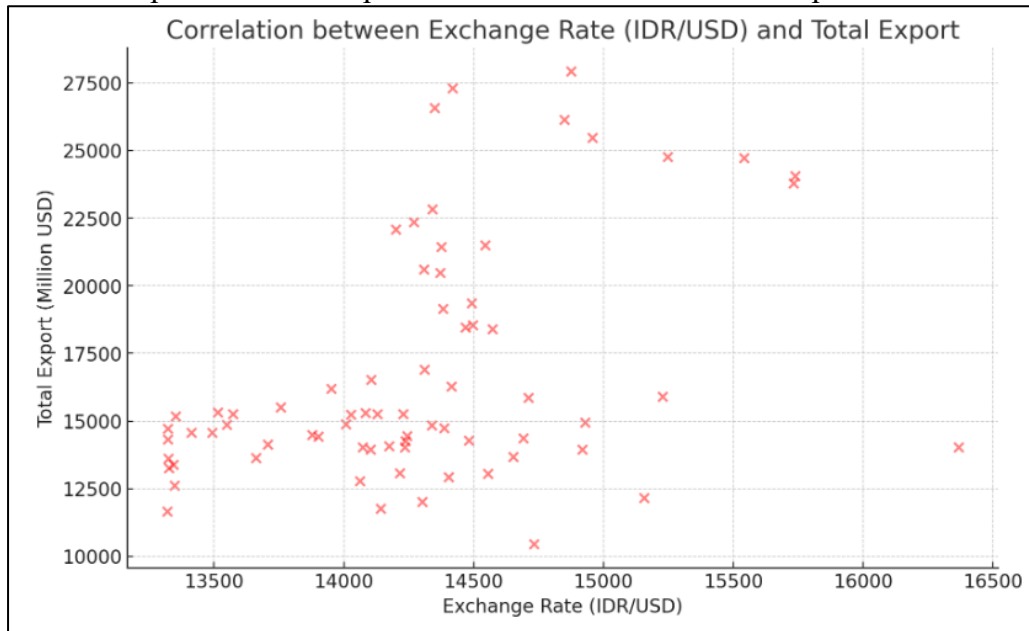
Tanzi (1988) argues that the exchange rate can affect the volume of international trade in both exports and imports. In general, a weakening rupiah will make goods in Indonesia relatively cheaper internationally, which will increase exports. Conversely, a stronger rupiah exchange rate will make goods in Indonesia relatively more expensive internationally, which will reduce exports and increase imports.

This paper aims to look at the relationship between the value of the rupiah against exports and imports both in total and per sector and type of goods. In addition, this study also aims to explain the cause of the decline in the value of the rupiah in October 2023.

Data

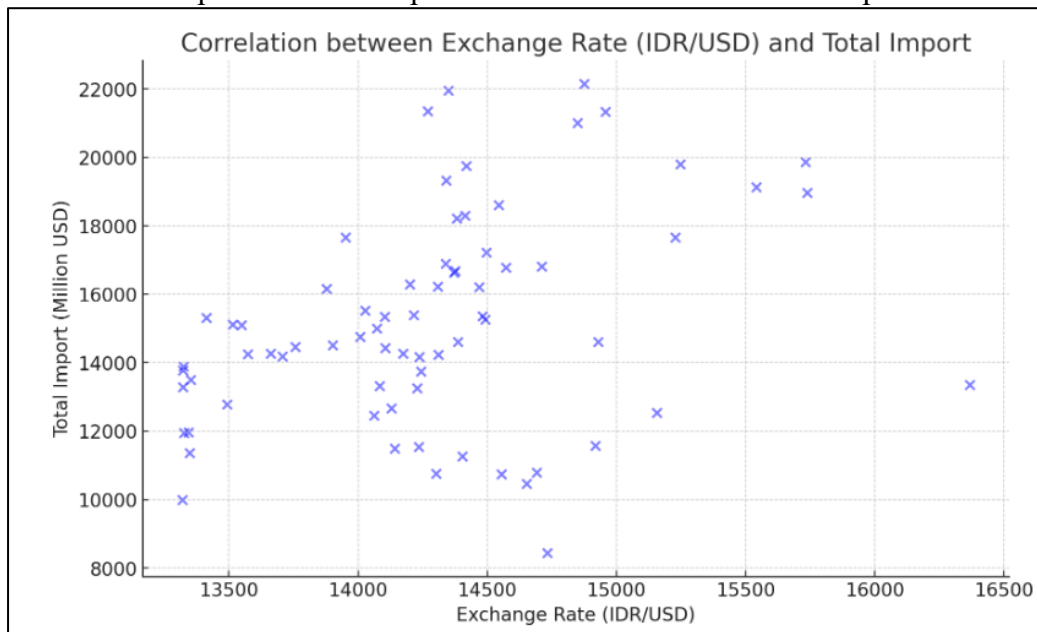
Based on data collected from satudata.kemendag.go.id, the relationship between the rupiah value and the value of exports and imports can be described. The relationship between the rupiah value and the total value of exports is as follows:

Figure 1
Relationship between the rupiah value and the total value of exports



Then, the relationship between the rupiah exchange rate against the USD and the total export value is as follows:

Figure 2
The relationship between the rupiah value and the total value of imports



The relationship between the rupiah value and the total export value has a correlation coefficient of 0.4344, while the relationship between the rupiah value and the total import value has a correlation coefficient of 0.3602.

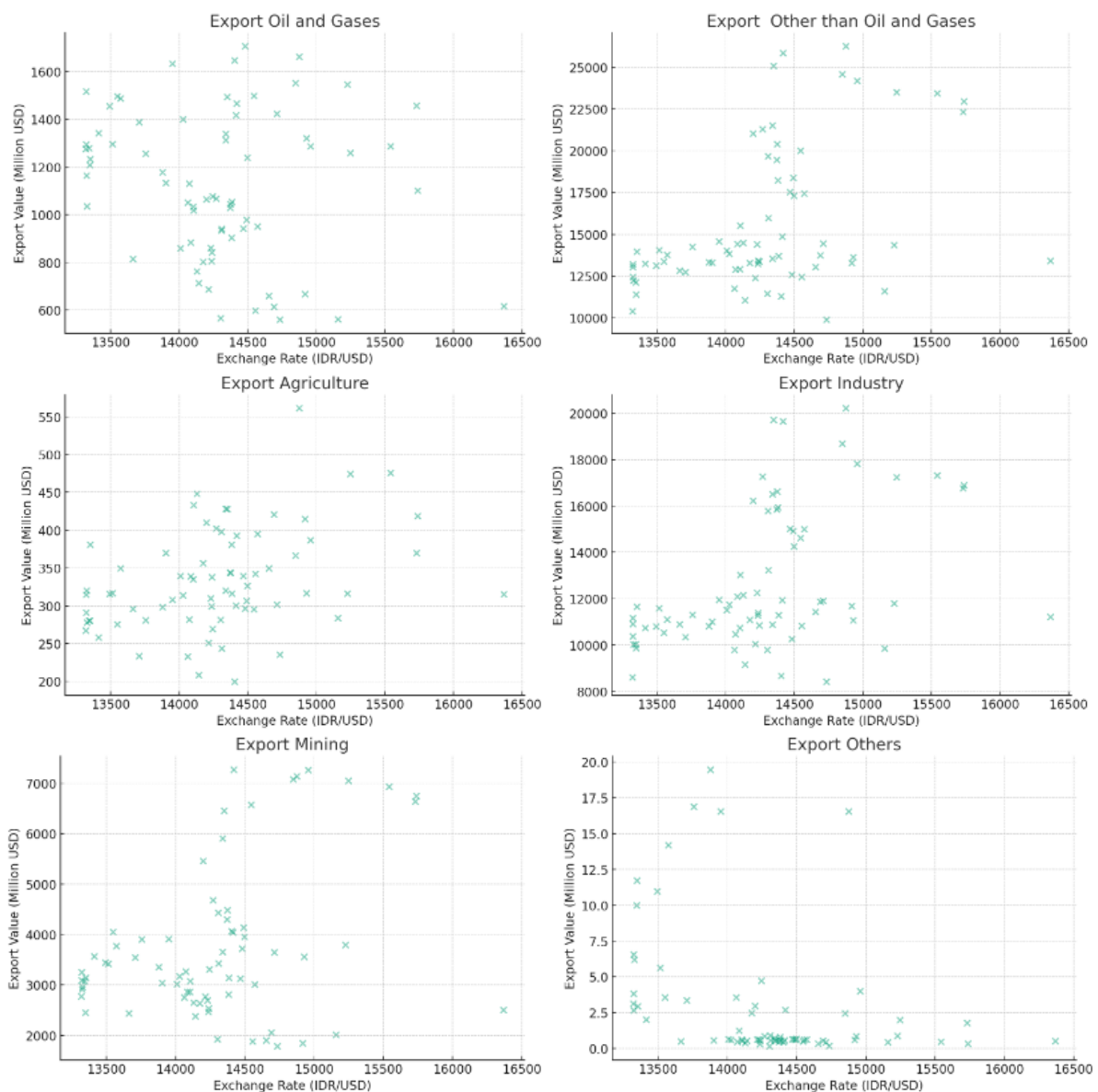
Figure 1 shows that the rupiah value and the total export value have a positive relationship. That is, when the rupiah value rises, the value of exports will rise. The correlation

coefficient of the relationship is 0.4344 which means that there is a positive medium correlation between the rupiah value and the total value of exports.

Figure 2 also shows that the rupiah value and the total value of imports have a positive relationship. That is, when the rupiah value rises, the value of imports will rise. The correlation coefficient of the relationship is 0.3602 which means that there is a positive medium correlation between the rupiah value and the total value of imports.

Next, we need to look at the relationship between the rupiah value with the export value per industrial sector and the import value per type of imported goods. The relationship between the rupiah value and the export value per industrial sector is depicted as follows:

Figure 3
Relationship between the rupiah value and the value of exports per sector



The correlation coefficient between the rupiah value and exports per sector is as follows:

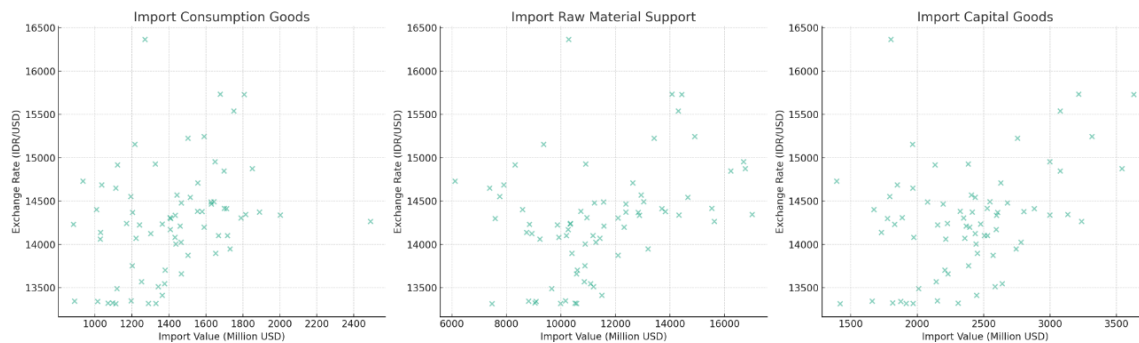
Table 1

Relationship between the rupiah value and the value of exports per industrial sector

Sector	Correlation Coefficient
Oil and Gases	-0.162
Other than Oil and Gases	0.458
Agriculture	0.371
Industry	0.442
Mining	0.365
Others	-0.366

Looking at the relationship between the rupiah value and the value of exports per industrial sector, it is known that non-oil and gas exports, agriculture, industry, and mining have a positive correlation with the rupiah value. In contrast, for oil and gas exports and other goods, there is a negative relationship between the rupiah value and the export of these goods. Furthermore, the relationship between the rupiah value and the value of imports per type of goods can be described as follows:

Figure 4
Relationship between the rupiah value and the value of imports per type of goods



The correlation coefficient between the rupiah value and imports per type of goods is as follows:

Table 2
Relationship between the rupiah value and the value of imports per type of goods

Type of Goods	Correlation Coefficient
Consumption Goods	0.306
Raw Material Support	0.347
Capital Goods	0.377

Regarding imports by type of goods, it can be seen that both imports of consumer goods, imports of raw materials, and imports of capital goods have a moderate positive relationship with the rupiah exchange rate against the USD.

Analysis

Causes of the Rupiah Exchange Rate Decline

The decline in the rupiah exchange rate, especially in October 2023, was mainly caused by global factors, including:

a. Increase in interest rates by the Fed

High inflation in the United States caused the Fed to increase interest rates. The increase in interest rates caused capital inflow to the United States, on the other hand, in other countries, including Indonesia, there was capital outflow which depreciated the value of local currencies (Ananda, 2023).

b. War Conflicts in both the Middle East and Ukraine

The war conflicts in Palestine and Ukraine caused investors to shift to safe haven countries and withdraw investments from developing countries (Ananda, 2023).

c. Improving economic conditions in the United States

Improving economic conditions in the United States not only attracted investors to invest their funds in the United States, but also resulted in the value of the USD strengthening which, on the other hand, suppressed the value of other countries' currencies, including Indonesia (Sanjaya & Nugroho, 2023).

The existence of this global factor is also evidenced by the weakening of the currencies of other countries besides the rupiah when compared to conditions at the beginning of 2023 as can be seen in the table below:

Table 3
Exchange Rate Weakening of Some Currencies

Currency Pair	Value on 2 January 2023	Value on 31 October 2023	Depreciation (%)
USD/IDR	15,570	15,905	2.15%
USD/MYR	4.402	4.764	8.22%
USD/SGD	1.3413	1.3666	1.89%
USD/THB	34.54	36.014	4.27%
USD/VND	23,515	24,565	4.47%
USD/JPY	130.73	150.2	14.89%
USD/KRW	1,269.03	1,350.92	6.45%

When compared to other currencies, the percentage weakening of the rupiah against the USD is not as large as some other countries in Southeast Asia or in Asia, where the rupiah only weakened 2.15% from the conditions at the beginning of 2023. On the other hand, the Japanese Yen weakened 14.89% from the conditions at the beginning of 2023.

Relationship between Rupiah to USD Exchange Rate and Exports and Imports

In theory, the depreciation of the rupiah will cause the price of goods in Indonesia to be cheaper internationally, which in turn can lead to an increase in export volume. Conversely, the depreciation of the rupiah will cause the price of goods in the international world to be more expensive so that it can reduce the volume of imports (EBC Financial Group, 2023).

However, in the case of Indonesia, there is a deviation from the theory, where based on empirical data in 2017 - 2022, the relationship between the rupiah exchange rate against the

USD and the volume of exports and imports is positive. Thus, the depreciation of the rupiah exchange rate increases the volume of exports and imports simultaneously.

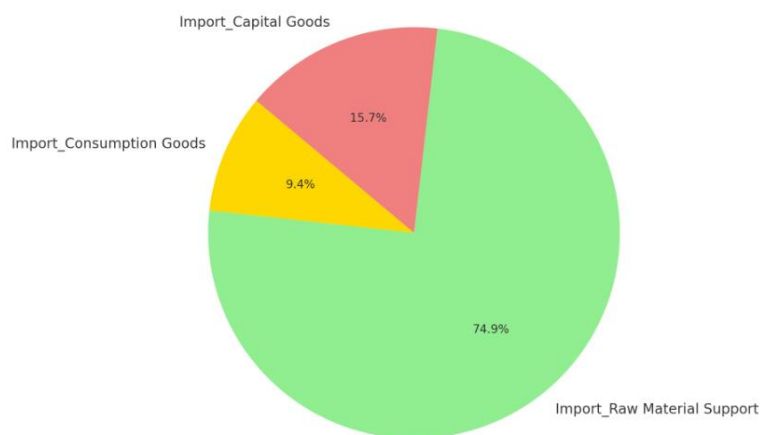
Some of the things that can explain this phenomenon are as follows:

a. Import and export values are interconnected with each other

Based on Figure 1 and Figure 2, it can be seen that both figures are similar to each other. This indicates that there is a strong relationship between export and import values. The correlation analysis between export and import values also produces a correlation coefficient of 0.8747, which means that there is a very strong correlation between export and import values.

When looking at the proportion of import value per type of goods, the majority of imports come from the type of raw materials as can be seen in Figure 5 below:

Figure 5
Proportion of Imports by Type of Goods



In the diagram above, it can be seen that 75% of imports are imports of raw materials, which are industrial raw materials that will then be re-exported abroad. Based on this, there is a stronger indication that the value of imports in Indonesia is more influenced by the value of exports, not the value of the rupiah. So when the value of exports is high because the value of the currency is depreciating, the value of imports will also be high.

b. Many other factors affect exports and imports

The currency exchange rate is not the only determinant that affects exports and imports, there are many other factors that cause an increase or decrease in the value of exports and imports. For example, high domestic demand. Indonesia's economy has high domestic demand for goods and services (US International Trade Administration, 2023).

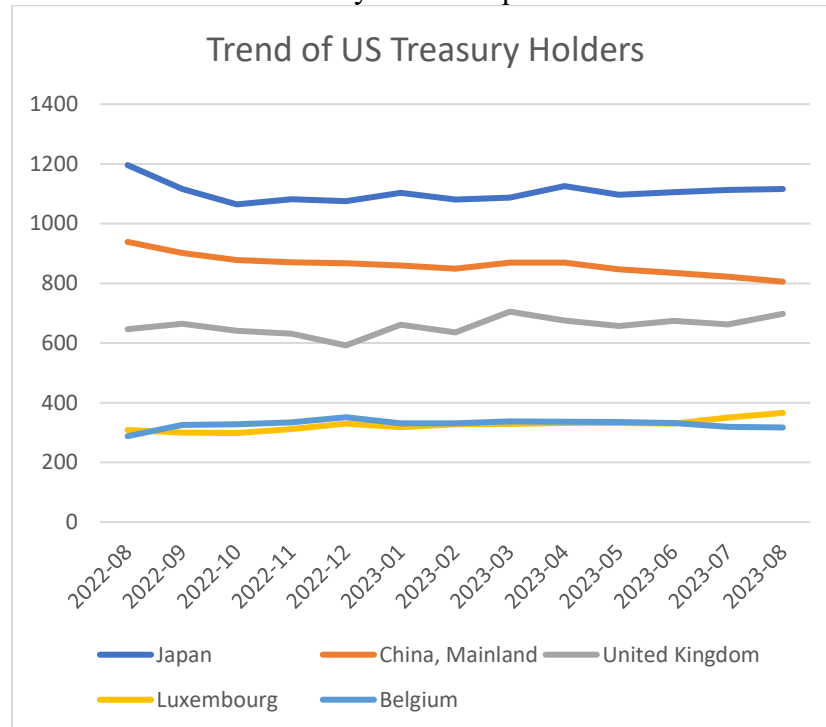
The resilience of the economy in Indonesia has also led to an increase in domestic demand resulting in high demand for imported goods. In 2011, when many global markets experienced debt problems and the impact of the world economic crisis, Indonesia recorded its fastest growth rate in 15 years, largely driven by strong domestic demand (Oxford Business Group, 2012).

Future economic predictions

The decline in the rupiah exchange rate is predicted to continue until 2024 given the predictions of the US economy that continues to increase and the interest rate hikes carried out by the Fed (Nisditia, 2023). However, some opinions predict that the USD value will weaken due to the sale of US treasuries by China and Japan, thus reducing the world's dependence on the USD (Dwi, 2022). This can also be seen in the graph below:

Figure 8

Trend Chart of US Treasury Ownership Outside the United States



However, if we look at the data on US treasury holdings outside the United States, the value of US treasury holdings abroad actually increased from USD 7,492.7 Billion in August 2022 to USD 7,707.0 Billion in August 2023. In addition, given the conflict in the Middle East, where Israel still refuses to ceasefire, the United States is still a safe alternative for investors to channel their capital (CNBC Indonesia, 2023b).

The weakening of the rupiah exchange rate not only affects exports and imports, but also the increase in Indonesia's external debt, both government debt and USD-denominated private debt. As a result, Indonesia's foreign exchange reserves shrank to USD 134.9 in early October 2023. This value is equivalent to 6 months of import and foreign debt payments. This figure is still within the safe limit of the international foreign exchange adequacy standard for import payments and foreign debt, which is 3 months (CNBC Indonesia, 2023a). Although, the value of the rupiah is predicted to reach the IDR 16,000/USD level, Indonesia's foreign exchange reserves are indicated to continue to be at a safe level as assuming imports and external debt do not change significantly, the foreign exchange reserves would need to shrink to below USD 67.45 to bring Indonesia to an unsafe point.

Furthermore, the weakening of the rupiah, which is predicted to continue until 2024, will also increase inflation. Bank Danamon economist, Irman Faiz, said that a 1% increase in the rupiah exchange rate against the USD will lead to a 0.008% increase in inflation (Pink, 2023). Currently, the rupiah has only weakened 2.15% when compared to the conditions at the beginning of the year as shown in table 3, but if the weakening continues, the impact on inflation will also be greater.

Conclusion

In conclusion, the weakening of the rupiah exchange rate, especially at the end of 2023, is mainly caused by global factors such as the increase in interest rates by the Fed, conflicts in Ukraine and the Middle East, and the strengthening of the US economy. Based on empirical

data in 2017-2022, the relationship between the rupiah exchange rate against the USD and the volume of exports and imports is positive. Thus, the depreciation of the rupiah exchange rate increases the volume of exports and imports simultaneously. This is due to the close relationship between the value of exports and the value of imports, one of which is caused by the proportion of raw material imports which reaches 75% of the total import value. In addition, it is also caused by many other factors besides the rupiah value that affect imports and exports. The decline in the rupiah exchange rate is predicted to continue until 2024 given the predictions of the US economy that continues to increase and the increase in interest rates by the Fed. Although, the rupiah is predicted to reach a level of IDR 16,000/USD, Indonesia's foreign exchange reserves are indicated to continue to be at a safe level as assuming imports and external debt do not change significantly, the foreign exchange reserves would need to shrink to below USD 67.45 to bring Indonesia to an unsafe point. The weakening of the rupiah, which is expected to continue until 2024, will also increase inflation.

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