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Factors Affecting Foreign Exchange Reserves in Indonesia Year 2020-2022

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Abstract:

This study aims to determine the factors that affect foreign exchange reserves in Indonesia in 2020-2022. Foreign exchange reserves are external assets that can be directly available to and are under the control of the Central Bank as the monetary authority to finance balance of payments imbalances, intervene in the market in order to maintain exchange rate stability, and other purposes. Foreign exchange reserves are influenced by many interrelated factors, including exports and the rupiah exchange rate. This research method is quantitative, data processing using SPSS and tests with multiple linear regression. The type of data used in this study is secondary data obtained from the Central Bureau of Statistics and Bank Indonesia with time series data for 3 years on a monthly basis (January to December). The data analysis used is multiple linear analysis and classical assumption test. The results showed that the Inflation Rate had an effect and was not significant to Indonesia's foreign exchange reserves. Interest rates have a positive and significant effect on Indonesia's foreign exchange reserves. The exchange rate has an effect and is not significant to Indonesia's foreign exchange reserves. Foreign Debt has a positive and significant effect on Indonesia's foreign exchange reserves. This shows that the stronger the Foreign Debt in Indonesia, the more it will affect the foreign exchange reserves in the country of Indonesia.

Keywords: *Foreign Exchange Reserves, Inflation, Interest Rates, Exchange Rates, Foreign Debt*

1. Introduction

Foreign exchange reserves are one of the guarantees for the creation of monetary and macroeconomic stability of a country. The more active a country conducts trade, the more foreign exchange is needed. Foreign exchange reserves are an asset stored by the central bank in the form of foreign currency which is used as a means of payment for international trade and domestic development financing, foreign exchange reserves can come from buying and selling activities between countries (Pinem, 2019; Musthaq 2021). Foreign exchange reserves are external assets that can be directly available to and are under the control of the Central Bank as the monetary authority to finance balance of payments imbalances, intervene in the market in order to maintain exchange rate stability, and other purposes (including maintaining economic resilience and exchange rates and as a cushion against Indonesia's net liabilities) (Sirait, 2020).

The size of a country's foreign exchange reserves depends on a variety of influencing factors such as inflation, exchange rates, interest rates, and foreign debt. The macroeconomic indicator that affects Indonesia's foreign exchange reserves is the rate

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of inflation. If the price of the goods and the service sector tends to increase, or what is called inflation, it will cause an obstacle to economic activity in the country concerned. The following verse of the Koran that discusses foreign exchange reserves is QS. An-Nisa Verse 29, as follows:

يَٰٓأَيُّهَا ٱلَّذِينَ ءَامَنُوا۟ لَا تَأْكُلُوٓا۟ أَمْوَٰلَكُم بَيْنَكُم بِٱلْبَٰطِلِ إِلَّآ أَن تَكُونَ تِجَٰرَةً عَن تَرَاضٍ مِّنكُمْ
وَلَا تَقْتُلُوٓا۟ أَنفُسَكُمْ ۚ إِنَّ ٱللَّهَ كَانَ بِكُمْ رَحِيمًا

Meaning: O you who have believed, do not eat of each other's wealth by means of false means, except by way of mutual trade between you. And do not kill yourselves; surely Allah is Most Merciful to you.

Based on the interpretation of Al-Muyassar, the meaning of the verse above is that it is not permissible for you to eat the wealth of some of you to some others without being based on Haq, unless it is in line with the law and legalized income that stems from the mutual consent of you. And let not some of you kill others, otherwise you will destroy yourselves by violating the prohibitions of Allah and disobeying Him. Verily, Allah is merciful to you in every matter What Allah commands you to do and what Allah forbids you to do.

According to the Keynesian school, another factor that affects foreign exchange reserves is the exchange rate. The exchange rate is the price of a currency in another currency and shows how many rupiahs it would take to get one unit of US dollars. The more foreign exchange reserves a country has, the greater the country's ability to conduct international economic and financial transactions and the stronger the value of the currency. Excess foreign exchange reserves also have an important role in reducing exchange rate fluctuations and encouraging a country's economic progress (Lubis, 2022; Demir & Razmi, 2022).

Besides the exchange rate, the factor of increasing or decreasing foreign exchange reserves is determined by the BI Rate (interest rate). Changes in interest rates will affect changes in the amount of demand and supply in the domestic money market. And if a country adopts a free foreign exchange regime, then it allows an increase in capital inflow from abroad so as to increase foreign exchange reserves. In measuring and viewing foreign exchange reserves, it can also be seen from how the stability of monetary and macroeconomic data, as follows:

Table 1. Monetary And Macroeconomic Data

Year	Monetary Economics	Macroeconomics
2018	45%	51%
2019	46%	52%
2020	43%	47%
2021	49%	49%
2022	47%	52%

Source: Bank of Indonesia, External Debt Statistics Of Indonesia (2023)

Based on the aforementioned data, it is evident that there's an instability between the monetary economy and the macroeconomy, which can also lead to fluctuations in foreign exchange reserves. Research conducted by Sitohang and Sudiana (2021) titled "The Effect of the Dollar Exchange Rate on Indonesia's Foreign Exchange Reserves in the 2010-2020 Period" reveals that the dollar exchange rate has a significant impact on Indonesia's foreign exchange reserves from 2010 to 2020. On a partial level, the dollar exchange rate exerts a significantly positive effect on Indonesia's foreign exchange reserves. In 2019, Kuswantoro conducted a study titled "Analysis of the Effect of Foreign Debt and Export on Indonesia's Foreign Exchange Reserves". His findings indicate that foreign debt and exports collectively exert a significant influence on Indonesia's foreign exchange reserves. Partially, exchange rate, foreign debt, and export variables have a significantly positive impact on Indonesia's foreign exchange reserves. However, inflation does not significantly affect Indonesia's foreign exchange reserves (Husna et al, 2021).

Indonesia's foreign exchange reserves tend to fluctuate from year to year. Many things require a very important source of financing, namely foreign exchange reserves. Indonesia's economic development today shows that it is increasingly integrated with the world economy. This is a consequence of the adoption of an open economic system in which activities are always related and cannot be separated from the phenomenon of international relations. Not to mention that the country makes foreign loans, resulting in a country's foreign exchange reserves being eroded or decreasing in number (Putra, 2019; Asranalp et al., 2022).

Table 2. Total Foreign Exchange Reserves, Inflation, Exchange Rates, Interest Rates and Indonesia's Foreign Debt in 2020-2022

Year	Reserve Foreign Exchange	Inflation	Rates	Interest Rate	External Debt Country
2020	101227.10	8,22	101754.00	94543.50	231.10
2021	105907.00	7,75	98385.50	96458.20	229.33
2022	106073.00	7,32	98040.40	96392.90	310.70

Source: Bank of Indonesia, External Debt Statistics Of Indonesia (2023)

Table 1 illustrates that in 2022, the position of foreign exchange reserves rose by 1% to a value of US $106,073 million. Furthermore, the foreign exchange reserves in 2022 were the highest in the past three years. The increase in foreign exchange reserves can be attributed to foreign exchange revenues from foreign debt, along with the impacts of inflation and the state of the rupiah exchange rate. The influence of inflation on Foreign Exchange Reserves is evident when inflation occurs, impacting economic activities, potentially reducing production levels, and affecting price levels. This results in a decrease in people's purchasing power, causing a surge in the money supply, which leads to depreciation of the currency value. In the event of such depreciation, the government intervenes in the foreign exchange market by purchasing foreign exchange, thereby reducing the availability of foreign exchange reserves. The data table above shows that the inflation rate decreases by 1% each year, which positively impacts Indonesia. (www.bi.go.id)

Furthermore, the rupiah exchange rate is one of the factors in determining the foreign exchange reserves owned. If the rupiah exchange rate experiences instability in the exchange rate against the dollar, it will have a negative impact on import activities, where import activities carried out by a country must use foreign currency, namely the dollar. From the table above, it can be seen that in the last three years the rupiah exchange rate has continued to decline. The highest decline occurred in 2020, which fell 3%. With the depreciation of the rupiah exchange rate, this will be very detrimental to Indonesia if the level of imports always increases. the weakening of the rupiah exchange rate will further worsen the condition of foreign exchange reserves.

Foreign debt is a factor to increase foreign exchange reserves. Where Indonesia's foreign exchange reserves can take the form of export payments, investment, bilateral assistance and loans so that the existence of foreign debt is expected to increase investment and increase a country's economic growth. The proportion of foreign exchange earnings in the current account sourced from exports that are withdrawn by all debt services such as interest and debt installments is a measure of the burden of foreign debt. From the existing table, it can be seen that every year the foreign debt fluctuates, but in 2022, there was an increase of 11%, this was due to the positive Foreign Debt parameter coefficient, perhaps foreign debt can indeed increase foreign exchange reserves, from what was originally in the form of loans to strengthen foreign exchange reserves (Jannah, 2020).

Foreign exchange reserves against interest rates can be seen when financial markets experience turmoil caused by rising interest rates, and increasing interest rates can also result in many incoming loans in this case foreign capital entering the country. From the table above, it shows that every year the number of interest rates has increased, but the highest increase in 2021 is 3%, this is because foreign capital entering in the form of loans will directly have an impact on increasing foreign exchange reserves or have a positive effect, and vice versa when loans decrease, it can reduce foreign exchange reserves (Harahap, 2022).

Indonesia's economic development today shows that it is increasingly integrated with the world economy. This is a consequence of the adoption of an open economic system whose activities are always related andcannot be separated from the phenomenon of international relations (Imsar, 2019). Not to mention that the country makes foreign loans, resulting in a country's foreign exchange reserves being eroded or decreasing in number (Aslami, 2022). The condition of Indonesia's foreign exchange reserves urgently needs to be increased so that the level of Indonesia's economic vulnerability can be reduced.

2. Theoretical Background

Inflation

Inflation refers to the tendency for the prices of products, in general, to escalate. A high inflation rate is typically associated with an overheated economy, indicating that the demand for products surpasses the economy's capacity to supply them, thus leading to a rise in prices (Jhingan, 2018).

The relationship between inflation and foreign exchange reserves is noteworthy. If the prices of goods and services incline, or in other words, inflation occurs, it hampers economic activities in the concerned country. This necessitates the country to procure more foreign exchange for transacting overseas. Therefore, to curb further inflation, the volume of currency in circulation must align with the needs, ensuring the stability of the exchange rate (Maulana, 2022).

Inflation is among the factors influencing a country's foreign exchange reserves level (Simamora & Widanta 2021). This implies that if a country experiences high inflation, the prices of goods and services within the country will increase. This triggers changes in the value of the currency, impacts the current account deposits of commercial banks, and affects foreign exchange reserves (Sunarji, 2019). In essence, the higher the inflation rate, the higher the value of a currency due to the rise in the market price of goods and services. If inflation occurs, it results in an escalation in the prices of food and fuel, creating a gap between supply and demand where import flows increase, and export flows are hindered or experience a continuous decline because domestically produced goods are much more expensive than similar goods produced abroad. Ultimately, this leads to a deficit in Indonesia's trade balance, which impacts the decrease in Indonesia's foreign exchange reserves (Manurung & Pratama, 2018).

Rates

The exchange rate is the price or exchange rate of a country's currency with another country's currency. If according to economists Fabozzi and Franco, the exchange rate is the amount of one currency that can be exchanged per unit with another currency or the price of one currency in another currency (Maysari, 2018; Marliyah et al., 2022). The relationship between the exchange rate and foreign exchange reserves is that the more forex or foreign exchange owned by the government and population of a country, the greater the country's ability to conduct international economic and financial transactions and the stronger the value of the currency (Sudiarti, 2018; Marliyah et al., 2023).

In addition, the higher the exchange rate of the country's own currency, it shows that the stronger the country's economy, so it can earn more foreign exchange. For example: when the Indonesian Rupiah Exchange Rate weakens, the Foreign Exchange Reserves will increase, the Rupiah is now 14,000 / USD, so there is an IDR-USD comparison. Foreign exchange reserves in the form of Dollars are automatically high compared to the Rupiah. If the rupiah continues to depreciate, it will result in a reduction in foreign exchange reserves. To stabilize the value of the rupiah, the solution from Bank Indonesia's policy is to disburse / release foreign exchange reserves and directly intervene in the forex market (Aslami, 2022).

Interest Rate

The interest rate is the fee that the borrower of capital has to pay for borrowing or using a certain amount of money to the lender of capital. There is a negative relationship between interest rates and investment levels. This means that if interest rates are high, the amount of investment will decrease, otherwise low interest rates will encourage more investment (Mardani, 2020). When interest rates rise, loans will become more expensive and lead to fewer projects that investors can undertake. Conversely, if interest rates fall, borrowing costs are cheaper and will increase the number of projects that investors can run (Hasibuan, 2021).

External Debt

Foreign debt is an external source of finance (either in the form of grants or loans) that can play an important role in complementing the shortage of domestic resources to accelerate the growth of foreign exchange and savings (the "two gaps" foreign aid analysis) (Nasution, 2019). Developing countries assume that in general they face constraints in the form of limited domestic savings that are far from sufficient to work on all available investment opportunities, as well as foreign exchange scarcity that does not allow them to import capital goods and intermediate goods that are important for their development (Daim, 2022; Salamah & Rahman 2022).

Foreign debt can indeed add to foreign exchange reserves, yes initially in the form of loans that can strengthen foreign exchange reserves. But every foreign loan received by Indonesia will add to the accumulated debt, and in turn (after going through delays) this accumulated debt must be paid, through debt repayments, which these payments clearly take and reduce foreign exchange reserves. So initially every loan will add to foreign exchange reserves. But in the future the loan must be paid and the payment will reduce foreign exchange reserves (Syahputri, 2020).

Foreign Exchange Reserves

Foreign exchange reserves are often referred to as international reserves and foreign currency liquidity (IRFLC) or official reserve assets, defining foreign exchange reserves as an amount of foreign exchange reserved by the central bank, in this case Bank Indonesia (BI) for the purposes of financing and foreign obligations of the country concerned, which include import financing and other payments to foreign parties. Sufficient foreign exchange reserves are a guarantee for achieving monetary and macroeconomic stability of a country (Jhingan, 2018).

If the foreign exchange reserves are not sufficient for three months of imports, it is considered vulnerable. The depletion of a country's foreign exchange reserves can cause economic difficulties for the country concerned, making it difficult to import needed goods from abroad, but it also undermines the credibility of its currency. Weak management of foreign exchange reserves can cause losses both in terms of finance and reputation. Investors will be discouraged from investing in the country because the country cannot manage its foreign exchange reserves properly. This situation illustrates that the country's monetary authority is unable to respond effectively when a crisis occurs (Wajdi, 2020).

3. Methodology

In this study, the method used was quantitative and in collecting data using the documentation method and secondary data retrieval method (Rahmani, 2018), the variables consisted of 1 *dependent variable,* namely: Indonesian Foreign Exchange Reserves, and 4 *independent* variables, namely: Inflation, Exchange Rate, Interest Rate and Foreign Debt. So that the scope of this research is Inflation, Rupiah

Exchange Rate, Interest Rate and Foreign Debt in Indonesia. The data in this study were obtained from Bank Indonesia publications.

Indonesian Economic and Financial Statistics (SEKI), *International Financial Statistic* (IFS), *Inflation Report* (*Consumer Price Index*), and *External Debt Statistics of Indonesia*. The secondary data is a sample taken from 2020 to 2022, in the form of monthly data. The software used in this research is SPSS.
From several factors that have been mentioned above, the hypothesis that will be formulated in this study is as follows:

Ho1: Inflation has a significant effect on Foreign Exchange Reserves in Indonesia in 2020-2022.

Ha1: Inflation has no significant effect on Foreign Exchange Reserves in Indonesia in 2020-2022.

Ho2: The exchange rate has a significant effect on Foreign Exchange Reserves in Indonesia in 2020-2022.

Ha2: The exchange rate has no significant effect on Foreign Exchange Reserves in Indonesia in 2020-2022.

Ho3: Interest rates have a significant effect on Foreign Exchange Reserves in Indonesia in 2020-2022.

Ha3: Interest rates have no significant effect on Foreign Exchange Reserves in Indonesia in 2020-2022.

Ho4: Foreign Debt has a significant effect on Foreign Exchange Reserves in Indonesia in 2020-2022.

Ha4: Foreign Debt has no significant effect on Foreign Exchange Reserves in Indonesia in 2020-2022.

4. Empirical Findings/Result

Normality Test

Table 3. Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	5460.50632
	Absolute	.240
Most Extreme Differences	Positive	.091
	Positive	.240

a. Test distribution is Normal.

Source: SPSS 24.00. Data Processed (2023)

Based on Table 1, it can be seen that the Asymp. Sig. (2-tailed) value is 0.076 (0.076 > 0.05). These results indicate that the regression equation is normally distributed because the Asymp. Sig. (2-tailed) is greater than the alpha value of 0.05.

Multicollinearity Test

Table 4. Multicollinearity Test

Coefficients[a]			
	Model	Collinearity Statistics	
		Tolerance	VIF
1	Inflation	.649	1.540
	Interest Rate	.742	1.348
	Rates	.606	1.652
	External Debt	.667	1.500

a. Dependent Variable: Foreign Exchange Reserves

Source: SPSS 24.00. Data Processed (2023)

Based on Table 2, it can be seen that the tolerance and VIF values of the Inflation, Interest Rate, Exchange Rate and Foreign Debt variables show that the tolerance value for each variable is greater than the VIF value. 0.1 and the VIF value is smaller than 10, which means that the regression equation model is free from multicollinearity

Heteroscedasticity Test

Table 5. Heteroscedasticity Test

	Coefficients[a]			
Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	54431.21	38361.14	
	Inflasi	4.832	157.739	.138
	Suku Bunga	6.078	1.217	.653
	Kurs	2.806	29.997	.052
	Utang Luar Negeri	.662	.114	.805

a. Dependent Variable: Cadangan Devisa

Source: SPSS 24.00. Data Processed (2023)

Based on Table 5, the significance value of the variables Inflation is 0.119, Rupiah Interest Rate is 0.702, and Exchange Rate is 1.057, and Foreign Debt is 0.087. This value is greater than 0.05, which means that there is no influence between the independent variables on the absolute residual. Thus, the model does not contain symptoms of heteroscedasticity.

Autocorrelation Test

Table 6. Autocorrelation Test

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.961[a]	.924	.873	7049.48369	2.085

a. Predictors: (Constant), Inflation, Interest Rate, Exchange Rate and Foreign Debt

b. Dependent Variable: Foreign Exchange Reserves

Source: SPSS 24.00. Data Processed (2023)

Based on the results of the Autocorrelation Test, the DW number is 2.085 with DL = 0.4444 and DU = 2.2833, so autocorrelation (0.4444 < 2.085 < 2.283) means there is no conclusion

Multiple Linear Regression Test

This multiple linear analysis aims to determine the effect of independent variables, namely Inflation (X1),), Interest Rates (X2),), Exchange Rates (X3) and Foreign Debt (X4),) on the dependent variable, namely Foreign Exchange Reserves (Y). The following are the results of multiple regression analysis using the IBM SPSS 24 program.

Table 7. Multiple Linear Regression Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
	(Constant)	54431.21	38361.14	
	Inflation	4.832	157.739	.138
1	Interest Rate	6.078	1.217	.653
	Rates	2.806	29.997	.052
	External Debt	.662	.114	.805

a. Dependent Variable: Foreign Exchange Reserves

Source: SPSS 24.00. Data Processed (2023)

Based on the results of the table above using the SPSS 24 program, it is known that the multiple linear regression equation is as follows:

$LnY\ \beta 0 + \beta 1\ Ln\ X1 + \beta 2\ Ln\ X2 + \beta 3\ Ln\ X3 + \beta 4\ Ln\ X4 + \mu$

So that the regression equation becomes as follows:

$LnY(54431) + 155\ (X1) + 6{,}078\ (X2) + 2{,}806\ (X3) + 66.2\ (X4) + \mu$

Description:

LnY Foreign Exchange Reserves LnX_1 = Inflation
LnX_2 = Interest Rate LnX_3 = Exchange Rate
LnX_4 = Foreign Debt

The results of the multiple regression equation above can be seen as follows:

1) The coefficient of the Inflation variable (X1) of 155 means that there is a positive influence between the Inflation variable on foreign exchange reserves.
2) The coefficient of the Interest Rate variable (X2) of 6.078 means that there is a positive influence between the Interest Rate variable on foreign exchange reserves.
3) The coefficient of the exchange rate variable (X3) of 2.806 means that there is a positive influence between the exchange rate variable on foreign exchange reserves.
4) The coefficient of the Foreign Debt variable (X4) of 66.2 means that there is a positive influence between the Exchange Rate variable on foreign exchange reserves.

Determinant Coefficient Test (R2)

Table 8. Determination Analysis Results

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.961[a]	.924	.873	7049.48369	2.085

a. Predictors: (Constant), Inflation, Interest Rate, Exchange Rate and Foreign Debt

b. Dependent Variable: Foreign Exchange Reserves

Source: SPSS 24.00. Data Processed (2023)

The magnitude of the influence of the independent variables on the dependent variable shown by the total determination value (Adjusted R Square) of 0.873 means that 87.3% of Foreign Exchange Reserves is influenced by the independent variables, namely inflation, interest rates, exchange rates and foreign debt, while the remaining 12.7% is explained by other variables outside the model variables not included in the study.

Simultaneous Test (F Test)

Table 9. F Test

				ANOVA[a]		
	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3617555508.588	4	904388877.147	18.199	.002[b]
	Residual	298171321.593	6	49695220.266		
	Total	3915726830.182	10			

Source: SPSS 24.00. Data Processed.2023

Based on the results of the analysis obtained a significance value 0.002 <0.05. So it can be concluded that inflation, rupiah exchange rates, interest rates, and exports simultaneously affect Indonesia's foreign exchange reserves because the test results show a probability <0.05 significance level.

Hypothesis Test (T Test)

Table 9. t test

	Coefficients[a]					
	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	54431.21	38361.14		1.674	.145
	Inflation	4.832	157.739	.138	.987	.362
	Interest Rate	6.078	1.217	.653	4.993	.002
	Rates	2.806	29.997	.052	.360	.731
	External Debt	.662	.114	.805	5.831	.001

a. Dependent Variable: Foreign Exchange Reserves

Source: SPSS 24.00. Data Processed (2023)

Based on the results of the analysis obtained a significance value of 0.362>

0.05 with a regression coefficient value of 4.832 and the value of t count < t table (0.987 < 1.895), it can be concluded that inflation has a positive and insignificant effect on Indonesia's foreign exchange reserves. If inflation is good then foreign exchange reserves are also good, and vice versa. Inflation greatly affects foreign exchange reserves in Indonesia. Based on the results of the analysis obtained a Significance value of 0.002 <0.001 <0.001. 0.05 with a regression coefficient value of 6.078 and the value of t count> t table (4.993> 1.895), it can be concluded that interest rates have a positive and significant effect on Indonesia's foreign exchange reserves. If the interest rate is good then the foreign exchange reserves are also good, and vice versa. Interest rates greatly affect foreign exchange reserves in Indonesia. Based on the results of the analysis obtained a Significance value of 0.731> 0.05 with a regression coefficient value of 2.806 and a t value < t table (0.360 < 1.895), it can be concluded that the exchange rate has a positive and insignificant effect on Indonesia's foreign exchange reserves. If the exchange rate is good then the foreign exchange reserves are also good, and vice versa. The exchange rate greatly affects foreign exchange reserves in Indonesia. The Effect of Foreign Debt on Indonesia's Foreign Exchange Reserves Based on the results of the analysis, the Significance value of 0.001 <0.001 is obtained. 0.05 with a regression coefficient value of 0.662 and a t value > t table (5.831> 1.895), it can be concluded that Foreign Debt has a positive and significant effect on Indonesia's foreign exchange reserves. If Foreign Debt is good then foreign exchange reserves are also good, and vice versa. Foreign debt greatly affects foreign exchange reserves in Indonesia.

5. Discussion

The Effect of Inflation on Foreign Exchange Reserves

Inflation variable obtained a significance value of 0.362 > 0.05 with a regression coefficient value of 4.832 and the value of t count < t table (0.987 < 1.895), it can be concluded that inflation has an effect and is not significant on Indonesia's foreign exchange reserves. This means that the higher the inflation in Indonesia, it will affect the foreign exchange reserves in the country of Indonesia. Conversely, the lower the inflation, the Indonesian foreign exchange reserves will also have an impact This is in line with the research of Rahmansyah (2019), which states that inflation affects foreign exchange reserves, which means that high inflation affects foreign exchange reserves in Indonesia.

The Effect of Interest Rates on Foreign Exchange Reserves

The interest rate variable obtained a significance value of 0.002 <0.05 with a regression coefficient value of 6.078 and the value of t count> t table (4.993> 1.895) it can be concluded that interest rates have a positive and significant effect on Indonesia's foreign exchange reserves. This shows that the strengthening of the rupiah interest rate in Indonesia will affect the foreign exchange reserves in the country of Indonesia. Conversely, the weaker the interest rate, the Indonesian foreign exchange reserves will also be affected. This is in line with Rismawati's research (2020) and

Indah (2019) which states that interest rates have a significant effect on foreign exchange reserves. With high interest rates, a country has good foreign exchange reserves.

The Effect of Exchange Rate on Foreign Exchange Reserve

The exchange rate variable obtained a significance value of 0.731 > 0.05 with a regression coefficient value of 2.806 and a t value < t table (0.360 < 1.895), it can be concluded that the exchange rate has an effect and is not significant on Indonesia's foreign exchange reserves. This research is in line with that conducted by Carissa & Khoirudin (2020), which states that the exchange rate has no effect on foreign exchange reserves, the higher the exchange rate in Indonesia, the more it will affect the foreign exchange reserves in Indonesia. Conversely, the lower the exchange rate, the Indonesian foreign exchange reserves will also be affected.

The Effect of Foreign Debt on Foreign Exchange Reserves

The Foreign Debt variable obtained a significance value of 0.001 <0.05 with a regression coefficient value of 0.662 and a t value> t table (5.831> 1.895), it can be concluded that Foreign Debt has a positive and significant effect on Indonesia's foreign exchange reserves. This research is in line with that conducted by Murni et al., (2021) and Djanegara (2019), which states that Foreign Affairs has a significant effect on Indonesia's foreign exchange reserves, which means that the existence of foreign debt has a good effect on foreign exchange reserves.

6. Conclusions

Based on the results of the data analysis above, it can be concluded that there is a significant influence of inflation, exchange rates, interest rates and foreign debt on Foreign Exchange Reserves in Indonesia from the results of simultaneous hypothesis testing. Inflation rate has an effect and is not significant on Indonesia's foreign exchange reserves. This shows that the higher the inflation in Indonesia, it will affect the foreign exchange reserves in Indonesia. Conversely, the lower the inflation, the Indonesian foreign exchange reserves will also have an impact. This is because the negative inflation parameter coefficient may be explained as follows, if the prices of goods and services tend to increase or called inflation, it will cause economic activity in the country concerned. So that the country needs more foreign exchange to be able to transact outside the country. In the end, it will result in a decrease in Indonesia's Foreign Exchange Reserves. And also based on research conducted by Indro Suwarno (2021), stating that Inflation has no effect on Indonesia's foreign exchange reserves. The interest rate has a positive and significant effect on Indonesia's foreign exchange reserves. This shows that the strengthening of the rupiah interest rate in Indonesia will affect the foreign exchange reserves in the country of Indonesia. Conversely, the weaker the interest rate, the Indonesian foreign exchange reserves will also be affected. The exchange rate has an effect and is not significant on Indonesia's foreign exchange reserves. This shows that the higher the exchange rate in Indonesia, it will affect the foreign exchange reserves in Indonesia. Conversely, the lower the exchange rate, the Indonesian foreign exchange reserves will also be affected. This research is in line with that conducted by Carissa & Khoirudin (2020), which states that exchange rates affect foreign exchange reserves. This happens because of the strengthening of the exchange rate / rupiah exchange rate and also the support of stable economic conditions, the foreign exchange reserves will increase because it can attract investors to invest in the market domestic finance which will lead to a surplus in the current account balance so that foreign exchange reserves increase. Foreign Debt has a positive and significant effect on Indonesia's foreign exchange reserves. This shows that the stronger the Foreign Debt in Indonesia, it will affect the foreign exchange reserves in the country of Indonesia. Conversely, the weaker the Foreign Debt, the Indonesian foreign exchange reserves will also be affected.

References:

Aslami, N. (2022). Marketing Strategy for Investment Insurance Products in Indonesia: Study of Axa Mandiri Investment Insurance Product Premium Simulation. *El-Mal: Journal of Islamic Economics and Business Studies*, *5*(2), 20. https://doi.org/https://doi.org/10.47467/elmal.v3i2.715

Arslanalp, S., Eichengreen, B., & Simpson-Bell, C. (2022). The stealth erosion of dollar dominance and the rise of nontraditional reserve currencies. *Journal of International Economics*, *138*, 103656.

Carissa, N., & Khoirudin, R. (2020). The factors affecting the rupiah exchange rate in Indonesia. *Jurnal Ekonomi Pembangunan*, *18*(1), 37-46.

Daim, R. H. (2022). *The effect of occupational health and safety to employee performance in the sawmills industries in Langkat, North Sumatra, Indonesia. IOP Conference Series: Earth and Environmental Science*, 9(1), 11.

Demir, F., & Razmi, A. (2022). The real exchange rate and development theory, evidence, issues and challenges. *Journal of Economic Surveys*, *36*(2), 386-428.

Djanegara, M. (2019). The Effect of Revenue on Financial Statements. *Ranggagading Scientific Journal*, 1(1), 12.

Harahap, I, (2022). *The Effect of SBI and SBIS as Monetary Instruments on the Indonesian Economy*. *Journal Shae*, 5(1), 11.

Hasibuan, R.R.A. (2021). The Relevance of Islamic Economic Principles in the Development of Muslims. *JESKaPe: Journal of Sharia Economics, Accounting and Banking*, 5(1), 11. https://doi.org/http://dx.doi.org/10.29040/jiei.v8i3.6308

Husna, A., Atika, A., Wahyudi, S., & Soemitra, A. (2021). Pengaruh Kebijakan Moneter Terhadap Kinerja Bisnis Perbankan Syariah. *Jurnal Riset Akuntansi dan Bisnis*, *21*(2), 215-225.

Imsar. (2019). *Analysis of Medan Durian Business Development Strategy*. North Sumatra State Islamic University.

Indah, S. H. (2019). Accountability and Transparency of Village Budget Accountability (APBDes), Indonesian College of Economics (STIESIA) Surabaya. *Journal of Accounting Science & Research*, 4(8), 11.

Jannah, N. (2020). The Effect of Monetary Operations on Inflation in Indonesia. *Journal of At-Tasawuh*, 1(5), 11.

Jhingan. (2018). *Development Economics and Planning*. Raja Grafindo Persada. Jonathan, G. (2018). The Effectiveness of Village Funds in Improving Development. *Science Government*, 2(2), 3-4.

Lubis, F. A. (2022). Analysis of E-Catalog Implementation on the Development of MSMEs in Medan City in Supporting the Progress of Sharia Economics. *Scientific Journal of Islamic Economics*, Vol.*8* (No.2), 4.

Manurung, P. R. (2018). *Money, Banks and Monetary Economics (Indonesian Contextual Studies)*. University of Indonesia.

Mardani. (2020). *Fiqh of Sharia Economics*. Prenadamedia Group.

Marliyah, Dharma, B., & Syarbaini, A. M. B. (2023). The Maturity of Risk Management in Indonesian Islamic Universities. *Journal of Business and Management Research,* 16(2), 117-125. Doi: 10.23969/jrbm.v16i2.7296.

Marliyah, Yafiz, M., Dharma, B., & Syarbaini, A. M. B. (2022). 'Amid: Islamic Integrative Approach as Survey Model. Indonesian Journal of Islamic Literature and Muslim Society, 7(1), 17-32.

Maulana, M. N. R. (2022). *Analysis of the Effect of Inflation, Exchange Rates, Interest Rates, Earning Per Share, and Firm Size on Stock Returns (Case Study of the Banking Company Sub-Sector Listed on the IDX 2017-2020)*. Muria Kudus University.

Maysari, S. (2018). *Analysis of Economic factors affecting the Rupiah Exchange Rate against the Currencies of Asean Countries*. UIN Jakarta.

Murni, A., Usman, U., Abubakar, J., & Rahmah, M. (2021). The Influence of the Number of Foreign Tourists and Foreign Debt to Foreign Exchange Reserves in Indonesia. *Journal of Malikussaleh Public Economics*, *4*(2), 19-25.

Musthaq, F. (2021). Development finance or financial accumulation for asset managers?: The perils of the global shadow banking system in developing countries. *New political economy*, *26*(4), 554-573.

Nasution, Y. S. J. (2019). *Money Market and Capital Market: An Introduction*. FEBI UIN-SU Press.

Pinem, J. (2019). *Analysis of the Effect of Export, Import, Rupiah Exchange Rate on Indonesia's Foreign Exchange Reserves*. University of North Sumatra.

Putra, I. B. P. and I. (2019). The *Effect of Inflation, Foreign Debt and Interest Rates on Foreign Exchange Reserves in 1996-2011*. Udayana University.

Rahmani, N. A. B. (2018). *Economic Research Methodology*. FEBI UIN-SU Press.

Salamah, N., & Rahman, M. (2022). View of Islamic Law on the management of the Health Social Security Organizing Agency (BPJS) Fund. *Scientific JournalEconomics Islam*, *8*(3), 11.

Simamora, R. M., & Widanta, A. A. (2021). The Effect of Export Value, Exchange Rate, and Inflation on Indonesia's Foreign Exchange Reserves. *International Journal of Innovative Science, Engineering & Technology*, *8*(5), 494-499.

Sirait, H. (2020). The Effect of Bank Health Level with the RGEC Method and Diversification Strategy on Profit Growth (Study on Bumn Banks Listed on the Indonesia Stock Exchange for the Period 2013-2019. *Economics and Accounting*, *1*, 11.

Sudiarti, S. (2018). *Contemporary Fiqh Muamalah*. FEBI UIN-SU Press.

Sunarji, H. (2019). *Introduction to Management: An Integrative Approach to Sharia Concepts*. FEBI UIN-SU Press.

Syahputri, C. E. (2020). Zakat Management for UMAT Economic Empowerment at BAZNAS Medan City. *Faihu Journal*, 2(2), 10.

Wajdi, F. (2020). *Islamic Economic Law: Revised Edition*. Sinar Grafika.