

## The Role of Exchange Rate in Moderating Effect of Sharia Shares, Sharia Mutual Funds, and Foreign Debt on National Economic Growth Rate in 2011-2023

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**Abstract:** High and sustainable economic growth must always be pursued to promote sustainable long-term economic development, improve welfare, and change the nation's economic foundation. Economic growth influences the welfare of society and is a benchmark for every country to see the growth and development of the country's economy. Several factors can affect economic growth in Indonesia, such as Islamic capital markets, foreign debt, and exchange rates. This study was conducted to analyse the ability of the exchange rate to moderate the influence of macroeconomic factors on the rate of economic growth for the period 2011-2023. This type of study is quantitative research using Moderated Regression Analysis as an analytical tool. The data used is secondary data with a quarterly period time series pattern obtained from official websites, such as the Financial Services Authority website for Sharia stock and Sharia mutual fund data, the Bank Indonesia website for foreign debt and exchange rate data, and the Central Statistics Agency for Gross Domestic Product. The sample in this study uses saturated sampling, which takes the entire quarterly data. For analysis assisted by Eviews 12 software with the results of foreign debt has a positive but insignificant effect on the rate of economic growth, the exchange rate has a positive and significant effect on the rate of economic growth, the exchange rate is not able to moderate Islamic stocks on the rate of economic growth, and the exchange rate can moderate foreign debt on the rate of economic growth.

**Keywords:** Islamic Capital Market, Foreign Debt, Exchange Rate, GDP.

## Introduction

Every country continues to push for maximum economic growth in the hope of a brighter future. When economic activity is higher than in previous times, the economy can be expanding or growing. In other words, activity can develop when the amount of goods and services produced increases over time.<sup>1</sup> Governments continue to utilize several methods that are resistant to economic change to measure the success of a country's economy. It is done to assess the performance of the government and other interested parties. A country is also said to be experiencing economic development if its ability to increase economic output is based on technological progress. In this case, it shows the increase in productivity and production of a country. High and sustainable economic growth must be pursued to promote long-term economic development, improve welfare, and change the long-term economic foundation. Furthermore, the value of Gross Domestic Product (GDP) indicates the level of economic growth in Indonesia. The performance of a country is in optimal condition when the value of GDP is high because the value of GDP represents the economic level of a country. To find out how much the performance of the Indonesian state in the process of growing its economy, it can be seen from the data information obtained through the Central Statistics Agency as follows:

Table 1. GDP Development at Constant Prices

Year	Gross Domestic Product (Billion)	Percent %
2015	Rp 8.982.517	4,87
2016	Rp 9.434.613	5,03
2017	Rp 9.886.710	4,79
2018	Rp 10.338.806	4,57
2019	Rp 10.790.902	5,37
2020	Rp 11.242.999	4,19
2021	Rp 11.695.095	4,02
2022	Rp 12.147.191	3,87

Data source: Processed secondary data (2024)

The statistics above show that the value of GDP in 2015 was Rp 8,982,517 billion, with an economic growth rate of 4.87 percent, and in 2016, the value increased to Rp 9,434,613 billion, with an economic growth rate of 5.03 percent. With a GDP value of Rp 9,886,710 billion in 2017, the economic growth rate fell by 0.24 percent from the previous year. This decline in economic growth continued until the GDP was Rp 12,147,191 billion in 2022, with an economic growth rate of 3.87 percent.

Economic expansion is inseparable from the functions of financial actors, one of which is the function of government in both the public and private sectors. The government is a forum that encourages economic improvement in Indonesia in various ways, including by supporting the Indonesian Capital Market, in this case by regulating exchange rates, sharia stocks, sharia mutual funds, and even using capital in the form of foreign debt. Capital accumulation is one of the determinants of economic growth in a country where capital accumulation can reflect effective demand and create efficient production in the future. The capital formation process can increase national output through various means to meet increased public demand.

The Harrod-Domar theory reminds us that the capacity of capital goods in the economy will increase due to investments made in the previous era. Furthermore, the

<sup>1</sup> Nur Faroh, "Pengaruh Saham Syariah, Sukuk Dan Reksadana Syariah Terhadap Pertumbuhan Ekonomi Nasional (Tahun 2008-2015)" (2017).

theory also analyses the conditions that need to be created to utilize the available capital goods in the future fully. According to Harrod-Domar's understanding, even when capital goods have been at their maximum for several years, overall spending in one year can increase capacity in the following year. This indicates that investment made at that time will increase the supply of products, capital, and services in the following year. Economic growth and investment rates are positively correlated, where a significant investment can increase manufacturing capacity, creating new jobs. The presence of many well-paid jobs can reduce the unemployment rate and increase people's income. In addition, this investment allows the transfer of knowledge and technology from developed to developing countries.<sup>2</sup>

Islam views the investment as part of *mu'āmalah*. It views it as something that must be done for money to grow and help others and strictly forbids the hoarding of wealth. As a result, the very worst repercussions will befall anyone who hoards wealth and does not use it by the will of Allah. Hoarding is an offense because it prevents the blessings that Allah gives to those who have a surplus to those who really need it (deficit). As a result, the social gap is widening. In Surah al-Taubah verses 34-35, Allah has emphasized this.

The existence of an Islamic capital market is very much needed for the sustainability of national and international economic activities. The Sharia-based capital market has developed well so far. Each of its instruments has experienced tremendous development from year to year. In this situation, several economic sectors can be supported by the moral market. The growth of Islamic products, such as Islamic stocks and Islamic mutual funds, can be used to see the development of the Islamic capital market. According to the Financial Services Authority's 2022 report on the development of Islamic finance, the Sharia Securities List (DES) is published periodically whenever there is a business activity, especially at the time of the initial sale of shares, and, on average, twice a year. The first DES until 2022 was determined through the Decree of the OJK Board of Commissioners Number Kep-38/D.04/2022, which became effective on 1 July 2022. A total of 504 shares of issuers and public corporations are among the sharia securities included in the first period DES and other sharia securities. Then, the Decree of the OJK Board of Commissioners Number Kep-81/D.04/2022 re-listed 542 shares of issuers and public companies as sharia securities in the second period DES.

Islamic mutual funds also play a role in boosting the economy, allowing Sharia-based investments to become more popular as a platform for individuals who want to invest but have limited time and knowledge. According to Law No. 8 of 1995 on the capital market, mutual funds are containers to collect funds from the investor community, which investment managers then use to buy securities portfolios. Islamic mutual funds are available as a forum for collecting public funds managed by legal organizations, namely Investment Managers. Islamic and conventional mutual funds have similarities in terms of making money and managing investment risk. However, what distinguishes Islamic mutual funds from other mutual funds is that their portfolios must comply with Sharia law, and non-halal profits are eliminated through cleaning procedures by management<sup>3</sup> Islamic mutual funds are defined as mutual funds that operate in accordance with the rules and principles of Islamic Sharia, both in the form of contracts between investors who act as holders of assets (*ṣāhib al-*

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<sup>2</sup> Bonaraja Purba, "Analisis Tentang Pertumbuhan Ekonomi Indonesia Periode Tahun 2009-2018," *Jurnal Humaniora* Vol 4, No 2 (2020): 244–255 . <http://jurnal.abulyatama.ac.id/index.php/humaniora/article/view/1366>

<sup>3</sup> M Widiyanti and N Sari, "Kajian Pasar Modal Syariah Dalam Mempengaruhi Pertumbuhan Ekonomi Di Indonesia," *Ekonomikawan : Jurnal Ilmu Ekonomi Dan Studi Pembangunan* (2019): 68–83.

*māl/rabb al-māl*) and investment managers acting as representatives (*sāhib al-māl*) with the use of investment, as stated in the Fatwa of the National Sharia Council of the Indonesian Ulema Council N. 20/DSN-MUI/IV/2001.

The government also strives to improve other economic standards by taking on debt. According to Harrod-Domar's theory, foreign debt in developing countries is caused by insufficient domestic savings to finance development. Where the growth rate is obtained by dividing domestic savings by the capital-output ratio. If domestic savings are not adequate to pursue the projected high growth rate, foreign debt is obtained<sup>4</sup>. Effective debt management can encourage investment and increase domestic savings that will support economic development. Infrastructure development is one form of appropriate utilization of foreign debt in developing countries such as Indonesia<sup>5</sup>.

Research related to the rate of national economic growth as influenced by Sharia stocks, Sharia mutual funds, and foreign debt, such as those conducted by Kartika<sup>6</sup> It is concluded that sharia stocks have a negative and significant effect on the economic growth rate. The research contradicts the research conducted by Muhammad<sup>7</sup>, The researcher found that sharia stocks positively and significantly affect economic growth. In addition, according to research conducted by Nurhidayah, Hidayati and Habib<sup>8</sup>, concluded that Sharia mutual funds can influence economic growth positively but not significantly. In contrast to research conducted by Ulfa and Sari<sup>9</sup> which concluded that Sharia mutual funds have a negative and insignificant effect on the national economic growth rate. The research was also conducted by Ulfa and Sari<sup>10</sup> which concluded that foreign debt positively influences economic growth but is not significant. In contrast to research conducted by Basten, Hudayah, and Gani<sup>11</sup> which concluded that foreign debt has a negative and significant effect on the economic growth rate.

According to the above, some previous research findings could be more consistent, resulting in research gaps that require further research and a review of existing research. To strengthen the current hypothesis, a moderating variable in the form of an exchange rate is included in this study. The exchange rate can partially assess a country's economy. The intensity of the relationship between supply and demand in the money market determines the exchange rate. For capital market players in Indonesia, knowing the exchange rate of the rupiah against foreign currencies is very important. Foreign investors' confidence in the Indonesian economy will be

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<sup>4</sup> O E Williamson, *The Economic Institutions of Capitalism* (New York: The Free Press, 1985).

<sup>5</sup> Bonaraja Purba, "Analisis Tentang Pertumbuhan Ekonomi Indonesia Periode Tahun 2009 - 2018," *Jurnal Humaniora* (2020): 244–255.

<sup>6</sup> Kharissa Dinna Kartika, "Pengaruh Saham Syariah, Obligasi Syariah, Reksadana Syariah Dan Inflasi Terhadap Pertumbuhan Ekonomi Indonesia Periode 2011 - 2017," *Skripsi IAIN Salatiga* (2019).

<sup>7</sup> Kharisma Muhammad, "Pengaruh Pasar Modal Syariah Dan Inflasi Terhadap Pertumbuhan Ekonomi Indonesia Periode 2011- 2020," *Skripsi* (2022).

<sup>8</sup> Dwi Nurhidayah, Amalia Nuril Hidayati, and Muhammad Alhada Fuadilah Habib, "The Influence of Inflation, Sharia Stock, Sukuk and Sharia Mutual Funds on National Economic Growth in 2013-2020," *Sinar Manajemen* (2022): 158–173.

<sup>9</sup> Maria Ulfa and Nadia Roosmalitas Sari, "Pengaruh Sukuk, Reksadana Dan Saham Syariah Terhadap Laju Pertumbuhan Ekonomi Di Indonesia Tahun 2017 - 2020," *Jurnal Ekonomi, Manajemen, Bisnis dan Akuntansi (JEMBA)* (2022): 555–568.

<sup>10</sup> *Ibid.*

<sup>11</sup> Eric Van Basten, Syarifah Hudayah, and Irwan Gani, "Pengaruh Utang Luar Negeri Terhadap Pertumbuhan Ekonomi Dan Dampaknya Pada Pengangguran Terbuka Di Indonesia," *Forum Ekonomi* 23 (1) 202, no. 1 (2021): 340–350, <http://journal.feb.unmul.ac.id/index.php/FORUMEKONOMI>.

affected by large and unstable spikes and drops in the exchange rate, which can jeopardize the company's value, cash flow, and profitability.

Indonesia still often uses the US Dollar in international trade, debt repayments, and even investments. As a result, changes in the exchange rate will have a significant influence on how fast the economy grows. Between the two currencies of each country, the exchange rate is used as a guarantee of the value of the currency against foreign currencies. Exchange rates often fluctuate as a result of market forces or actions taken by central banks. Depreciation and appreciation are phrases often used to discuss changes in currency prices. The value of the rupiah will increase when the exchange rate decreases, and the value of the rupiah will decrease when the exchange rate increases. So, based on the explanation above, the research conducted has various objectives: 1) to analyze how much influence Sharia stocks, Sharia mutual funds, foreign debt, and exchange rates have on the national economic growth rate in 2011-2023. 2) to analyze the role of the exchange rate in moderating the effect of Sharia stocks, mutual funds, and foreign debt on the national economic growth rate in 2011-2023.

## **Research Method**

The research approach implements quantitative methods. This approach is used because this type of research creates new findings that are achieved through statistical procedures. As well as in this study examining population or sample data related to the variables analysed through statistical test tools and objective theories<sup>12</sup>. In this study, there are three variables, namely the dependent variable (national economic growth rate (GDP)), the independent variable, namely Sharia stocks (SS), Sharia mutual funds (RS), and foreign debt (ULN), and the moderating variable, namely the exchange rate (NT), to find out how much influence these variables had in 2011-2023. This research uses secondary data obtained through three websites. The first is from the official website of the Financial Services Authority to obtain data on Sharia stocks and Sharia mutual funds. The second is the official website of Bank Indonesia to obtain data on foreign debt and exchange rates. The third is the official website of the Central Bureau of Statistics to obtain Gross Domestic Product data. The type of data taken in the form of time series or time series data during 2011-2023, which was taken in November 2023.

The sample selection that will be applied in this study uses saturated sampling, determining the entire population to be the research sample. Furthermore, the software used in data testing uses Eviews 12 using the MRA (Moderated Regression Analysis) regression method. This method is used to simultaneously determine the role of moderating variables in moderating the independent variable on the dependent variable. Before MRA testing is carried out, classical assumption testing is first carried out, which includes testing normality, multicollinearity, heteroscedasticity, and autocorrelation. Furthermore, hypothesis testing is carried out, which includes the T-test, F-test, and determination test ( $R^2$ ).

## **Results**

The data analysis method implements the Moderated Regression Analysis test, but previously a classical assumption test was required and to facilitate data testing the Eviews 12 software was used. This test method is applied to analyse the rate of economic growth, which is influenced by Islamic stocks, Islamic mutual funds, and

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<sup>12</sup> I Made Laut Mertha Jaya, *Metode Penelitian Kuantitatif Dan Kualitatif: Teori, Penerapan Dan Riset* (Yogyakarta: Anak Hebat Indonesia, 2020).

foreign debt and moderated by the exchange rate. In this study, the stationarity test used is the unit root test with the Augmented Dickey-Fuller (ADF) test. To see the test results of each research variable in the table below:

Table 2. Stationarity Test Results

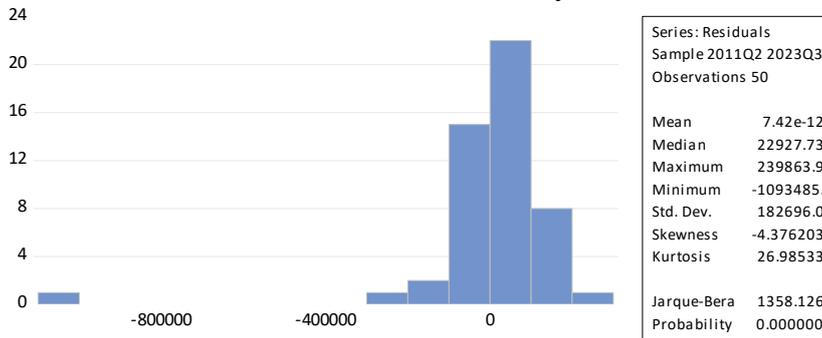
No	Variable	Level		1 <sup>st</sup> Difference	
		Prob.	Description	Prob.	Description
1.	PDB	0.3166	Not stationary	0.0000	Stationary
2.	SS	0.0075	Stationary	0.0000	Stationary
3.	RS	0.6030	Not stationary	0.0000	Stationary
4.	ULN	0.1175	Not stationary	0.0000	Stationary
5.	NT	0.4197	Not stationary	0.0000	Stationary
6.	SSNT	0.9929	Not stationary	0.0000	Stationary
7.	RSNT	0.7775	Not stationary	0.0000	Stationary
8.	ULNNT	0.2411	Not stationary	0.0000	Stationary

Data source: Data processed (2024)

Table 2 above indicates that the probability value has a value below 0.05 at the 1st Different level, so this research data has been stationary at the 1st Different level. Furthermore, the classical assumption test was carried out before conducting the regression test with the following results:

**Normality Test**

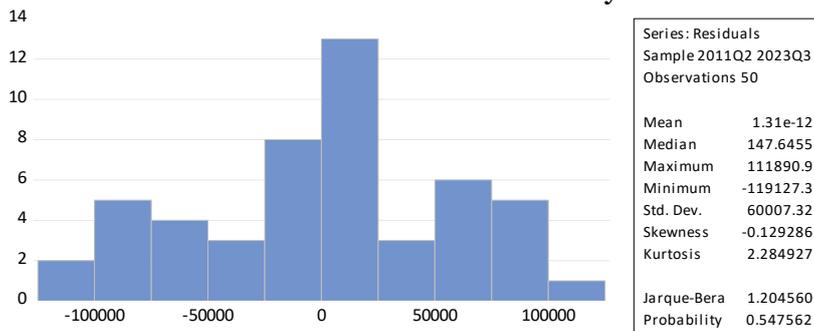
Picture 1. Normality Test Results



Data source: Data processed (2024)

Based on the normality test in picture 1, it can be seen that the prob value. 0.0000 < 0.05, it can be concluded that this study is not normally distributed. Therefore, healing efforts are needed by outlining the data with the following results:

Picture 2. Normality Test Results



Data Source: Processed secondary data (2024)

Based on the normality test carried out in picture 2, it can be seen that the prob value.  $0.5475 > 0.05$ , it can be concluded that the data in this study are normally distributed so that further data testing can be carried out.

### Multicollinearity Test

Table 3. Multicollinearity Test Results

No	Variable	R-Variable	R-Utama	Description
1.	SS = RS +ULN+NT+SSNT+RSNT+ULNNT	0.921003	0.911800	Affected by multicollinearity
2.	RS = SS +ULN+NT+SSNT+RSNT+ULNNT	0.994744		Affected by multicollinearity
3.	ULN = SS +ULN+NT+SSNT+RSNT+ULNNT	0.784675		Multicollinearity free
4.	NT = SS +RS+ULN+SSNT+RSNT+ULNNT	0.927429		Affected by multicollinearity
5.	SSNT = SS +RS+ULN+NT+RSNT+ULNNT	0.886998		Multicollinearity free
6.	RSNT = SS +RS+ULN+NT+SSNT+ULNNT	0.994273		Affected by multicollinearity
7.	ULNNT = SS +RS+ULN+NT+SSNT+RSNT	0.908477		Multicollinearity free

Data Source: Processed secondary data (2024)

For multicollinearity testing, use the Auxelaray test by comparing the R-variables with the R-Utama. Table 1 shows that the SS, RS, NT, and RSNT variables are exposed to multicollinearity problems, with the R-Square value of each variable exceeding the R-Utama of 0.9118. The variables of ULN, SSNT, and ULNNT are free from multicollinearity problems, with the R-Square value of each variable being less than the R-Utama. Then recovery efforts are needed with the following results:

Table 4. Multicollinearity Cure Results

No	Variable	R-Variable	R-Utama	Description
1.	ULN = NT+SSNT+ULNNT	0.757906	0.918004	Multicollinearity free
2.	NT = ULN+SSNT+ULNNT	0.911014		Multicollinearity free
3.	SSNT = ULN+NT+ULNNT	0.780782		Multicollinearity free
4.	ULNNT = ULN+NT+SSNT	0.831451		Multicollinearity free

Data Source: Processed secondary data (2024)

Based on table 4 indicates that of the seven variables there are only four variables that are free from multicollinearity problems with the R-Square value of each variable smaller than the R-Utama of 0.9180. so that researchers can continue the next test using these four variables.

## Heteroscedasticity Test

Table 5. Heteroscedasticity Test Results

Heteroskedasticity Test: Glejser  
Null hypothesis: Homoskedasticity

F-statistic	1.371972	Prob. F(8,41)	0.2375
Obs*R-squared	10.55855	Prob. Chi-Square(8)	0.2280
Scaled explained SS	9.189913	Prob. Chi-Square(8)	0.3265

Data Source: Processed secondary data (2024)

From the test results of table 5, resulting in a prob. value of  $0.2280 > 0.05$ , it can be concluded that this study is free from heteroscedasticity problems.

## Autocorrelation Test

Table 6. Autocorrelation Test Results

R-squared	0.918004	Mean dependent var	25811.66
Adjusted R-squared	0.902005	S.D. dependent var	202055.1
S.E. of regression	63251.75	Akaike info criterion	25.10918
Sum squared resid	1.64E+11	Schwarz criterion	25.45335
		Hannan-Quinn	
Log-likelihood	-618.7296	criteria.	25.24024
F-statistic	57.37797	Durbin-Watson stat	2.104105
Prob(F-statistic)	0.000000		

Data Source: Processed secondary data (2024)

Table 7. Durbin-Watson

dL	dU	dW	4-dU	4-dL
1.3855	1.7218	2.104105	2.2782	2.6145

Data Source: Processed secondary data (2024)

Based on tables 6 and 7 above, it can be seen that the dW value is 2.1041, and compared to the dW table (sig 0.05, n = 51, k = 4), the dL value is 1.3855 and the dU value is 1.7218. because the dW value of 2.1041 is compared to the dW table, the dW value is in the range of  $dU < dW < 4-dU$ , it can be concluded that there is no autocorrelation problem.

## MRA Test

Table 8. MRA Test Results

Dependent Variable: D(PDB)  
 Method: Least Squares  
 Date: 02/18/24 Time: 23:13  
 Sample (adjusted): 2011Q2 2023Q3  
 Included observations: 50 after adjustments  
 Indicator Saturation: IIS, 50 indicators searched over 2 blocks  
 4 IIS variables detected

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	49174.67	13155.53	3.737948	0.0006
D(ULN)	3.096619	1.611649	1.921398	0.0617
D(NT)	109.3829	18.26784	5.987731	0.0000
D(SSNT)	-8.11E-07	2.89E-06	-0.280780	0.7803
D(ULNNT)	-0.000189	7.73E-05	-2.445781	0.0188
@ISPERIOD("2019Q2")	157105.8	64880.53	2.421462	0.0200
@ISPERIOD("2020Q1")	-410016.9	84013.64	-4.880361	0.0000
@ISPERIOD("2021Q1")	-1218902.	65957.30	-18.48017	0.0000
@ISPERIOD("2022Q1")	-157403.2	67087.09	-2.346252	0.0239
R-squared	0.918004	Mean dependent var	25811.66	
Adjusted R-squared	0.902005	S.D. dependent var	202055.1	
S.E. of regression	63251.75	Akaike info criterion	25.10918	
Sum squared resid	1.64E+11	Schwarz criterion	25.45335	
Log-likelihood	-618.7296	Hannan-Quinn criteria.	25.24024	
F-statistic	57.37797	Durbin-Watson stat	2.104105	
Prob(F-statistic)	0.000000			

Data Source: Processed secondary data (2024)

The value of each variable represented in table 8 is  $D(GDP)49174.6669462+3.09661872808*D(ULN)+109.382888756*D(NT)-8.10866345755e-07*D(SSNT)-0.00018910884055*D(ULNNT)+157105.759382*@ISPERIOD("2019Q2")-410016.872782*@ISPERIOD("2020Q1")-1218901.88103*@ISPERIOD("2021Q1")-157403.199757*@ISPERIOD("2022Q1")$ . The conclusion that can be drawn from the equation is:

1. The constant value is 49174.6669462, meaning that the dependent variable, namely the national economic growth rate, will increase by 49174.6669462, assuming the variables of external debt, NT, SSNT, and external debt are constant (fixed or zero).
2. The coefficient value of foreign debt represented by ULN is 3.09661872808 in the positive direction, meaning that with every one-unit increase in the foreign debt variable, economic growth also increases by 3.09661872808, assuming the NT, SSNT, and ULNNT variables are constant.
3. The coefficient value of the exchange rate variable represented by NT is 109,382888756 in the positive direction, meaning that economic growth will increase by 109,382888756 as the NT variable increases by one unit, assuming that the external debt, SSNT, and external debt variables are constant.

4. The coefficient value of Islamic stocks moderated by the exchange rate represented by SSNT is  $8.10866345755e-07$  in the negative direction, meaning that every one unit increase in the SSNT variable decreases economic growth by  $8.10866345755e-07$ , assuming that the external debt, NT, and external debt variables are constant.
5. The coefficient value of foreign debt that the exchange rate represented by ULNNT has moderated is  $0.00018910884055$  in the negative direction, meaning that every one unit increase in the ULNNT variable will decrease economic growth by  $0.00018910884055$ , assuming that ULN, NT and SSNT are constant.

The next stage is to test the hypothesis with the T-test, where this test is carried out to analyze the relationship between the independent and moderated variables on the dependent variable in partial research. The results are in Table 8 with the following representation:

1. External Debt

From the test conducted in Table 8, it can be seen that the prob value is 0.0617, meaning that the prob value is greater than 0.05, with the coefficient in the positive direction. This shows that the foreign debt variable has a positive but insignificant effect on the economic growth rate.

2. Exchange Rate

From the test conducted in table 8, it can be seen that the prob value is 0.0000, meaning that the prob value is smaller than 0.05 with the coefficient in the positive direction, this shows that the exchange rate variable has a positive and significant effect on the rate of economic growth.

3. Islamic stocks that have been moderated by the Exchange Rate

From the test conducted in Table 8, it can be seen that the prob value is 0.7803, meaning that the prob value is greater than 0.05 with a negative coefficient; this indicates that the Islamic stock variable that has been moderated by the exchange rate has a negative and insignificant effect on the rate of economic growth.

4. Foreign debt moderated by Exchange Rate

From the test conducted in Table 8, it can be seen that the prob value is 0.0188, meaning that the prob value is smaller than 0.05 with the coefficient in the negative direction. This shows that the foreign debt variable moderated by the exchange rate has a negative and significant effect on the rate of economic growth.

The next stage in hypothesis testing is the F-test, which is carried out simultaneously with the aim of analyzing the relationship between the independent and moderated variables on the dependent variable in research. The results are in Table 8 with the following representation. Based on the results of Table 8, it shows that if the prob (F-statistic) value of 0.0000 is smaller than 0.05, it can be concluded that foreign debt, exchange rates, Islamic stocks that have been moderated by exchange rates, and foreign debt that have been moderated by exchange rates together (simultaneously) have a positive and significant effect on the rate of economic growth.

The last stage in hypothesis testing is the  $R^2$  test. according to the data in table 8, the Adjusted R-Square test value is 0.9020, which means that the variation in the national economic growth rate can be explained by the variation in the variables of foreign debt, exchange rates, Islamic stocks that have been moderated by exchange rates and foreign debt that has been moderated by exchange rates by 90% and the remaining 10% can be explained by variations in other models.

## **Discussion**

### **1. Analysis of the variables used in the regression model**

#### **a. Effect of Foreign Debt on Economic Growth Rate**

From the test results conducted in Table 8, it can be seen that the regression coefficient value of the foreign debt variable is 3.096619 with a probability value of 0.0617, meaning that the probability value is more significant than 0.05. It shows that the foreign debt variable has a positive but insignificant effect on the rate of economic growth, so the conclusion Hypothesis is rejected. This research is in line with research conducted by Sari<sup>13</sup> with the conclusion that foreign debt has a positive but insignificant effect on the economic growth rate. These results are not in line with research conducted by Basten, Hudayah, and Gani<sup>14</sup> with the conclusion that foreign debt has a negative and significant effect on the economic growth rate. And not in line with research Nurwahida, Sugianto and Jannah<sup>15</sup> which concluded that foreign debt has a positive and significant effect on the rate of economic growth.

Every country's economic policy aims to achieve sustainable economic growth with infrastructure development and poverty alleviation efforts. However, most developing countries do not have sufficient financial reserves to support economic growth. It can be caused by several factors, such as low levels of domestic savings and investment, low productivity, and high consumption patterns, resulting in reduced domestic savings and foreign exchange needed to achieve development goals and other national goals. Therefore, foreign debt was decided to be used as one of the sources of external funding to achieve sustainable economic growth. Based on BPS data, Indonesia's external debt-to-GDP ratio from 2011 to the present does not exceed or even reach the debt-to-GDP ratio limit, so it can be said to be safe. The ratio value ranges from 25% to 39%; even in the third quarter of 2023, the debt-to-GDP ratio was only 28.9%. This means that Indonesia's foreign debt is still relatively safe, and production activities in Indonesia are relatively more significant than the amount of debt. However, the implementation of the budget could have gone better, such as the lack of directed allocation and fraudulent practices in the distribution of the budget, which led to disruption of productivity and stagnation of domestic income. So that the growth rate becomes insignificant.

#### **b. The effect of Exchange Rate on Economic Growth Rate**

From Table 8, it can be seen that the coefficient value of the exchange rate variable is positive with a value of 109.3829, and the probability value is 0.00000, meaning that the value is smaller than 0.05. this indicates that the exchange rate variable has a positive and significant effect on the rate of economic growth. The results of this study are in line with research conducted by Ismanto, Rina, and Ristiani<sup>16</sup> and then research conducted by Choiriyah ang Auwalin<sup>17</sup> which states that

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<sup>13</sup> Septiani Sari, "Pengaruh Utang Luar Negeri, Sukuk, Inflasi Dan Tingkat Suku Bunga Terhadap Pertumbuhan Ekonomi Indonesia Tahun 2014 - 2019," *Skripsi IAIN Salatiga* (2020).

<sup>14</sup> Basten, Hudayah, and Gani, "Pengaruh Utang Luar Negeri Terhadap Pertumbuhan Ekonomi Dan Dampaknya Pada Pengangguran Terbuka Di Indonesia."

<sup>15</sup> Nurwahida, Sugianto, and Nurul Jannah, "Pengaruh Ekspor, Reksadana Syariah Dan Utang Luar Negeri Terhadap Pertumbuhan Ekonomi Nasional Periode 2012-2020," *Jurnal Ilmiah Ekonomi Islam* 8, no. 02 (2022): 1584–1597.

<sup>16</sup> Bambang Ismanto, Lelahester Rina, and Mita Ayu Ristiani, "Pengaruh Kurs Dan Impor Terhadap Pertumbuhan Ekonomi Indonesia Periode Tahun 2007 - 2017," *Jurnal Ecodunamika : Pendidikan Ekonomi Universitas Kristen Satya Wacana* (2019).

<sup>17</sup> Evi Aninatin Ni'matul Choiriyah and Ilmiawan Auwalin, "The Effect Of Commodity Prices, Exchange Rates, Inflation, Foreign Direct Investment And Human Resources On The Economy Of The Organization Of Islamic Cooperation (OIC) Countries," *Jurnal Ekonomi Syariah Teori dan Terapan* (2020): 1606–1628.

the exchange rate has a positive and significant effect on economic growth. This research contradicts the author's hypothesis and research conducted by Anzella, Desmintari, and Sugianto<sup>18</sup> which in his research states that the exchange rate has a negative and significant effect on the rate of economic growth. And also contrary to the research conducted by Purba<sup>19</sup> where his research states that the exchange rate has a negative but insignificant effect on the rate of economic growth.

The exchange rate indicates the amount of domestic currency needed to obtain some foreign currency. The rise and fall of the exchange rate will certainly have an impact on trade traffic. Depreciation of the exchange rate will be detrimental to the importing country because the price of goods from abroad becomes more expensive; on the other hand, for exporters, this condition is very beneficial for the country because the goods they produce are cheaper so that they are in demand in the international market. The Mundell-Fleming theory states that there is a negative relationship between exchange rates and economic growth, where the higher the exchange rate, the lower the net exports. The decline will cause the amount of output to decrease and will cause growth to decline. Therefore, the role of the exchange rate is significant to the rate of economic growth.<sup>20</sup>

Accelerated economic growth tends to be associated with exchange rate depreciation as well as with exchange rate stability in developed countries. However, for developing countries, the exchange rate is used as an instrument to gain comparative advantage by lowering export prices. Export stimulation through currency depreciation is associated with the growth of modernization and industrialization of production. Thus, the exchange rate has a positive effect on economic growth. However, this relationship becomes unfavorable in the long run because it will lead to negative effects, such as financial instability, inflation, and a decrease in purchasing power. The positive relationship between the exchange rate and economic growth is validated in the short term because it is the short-term depression that can boost economic growth through more competitive exports.

### c. The Effect of Islamic Stocks that have been Moderated by the Exchange Rate on the Rate of Economic Growth

From Table 8, it can be seen that the coefficient value of the Islamic stock variable has a negative and insignificant effect after being moderated by the exchange rate. It can be seen in the probability value of 0.7803, meaning that the value is more significant than 0.05, and the coefficient value of 8.11E-07 is negative. So, the hypothesis is rejected because of Sharia. It is in line with research conducted by Afnan<sup>21</sup> his research concluded that the exchange rate could not moderate the effect of Islamic stocks on the economic growth rate. This research contradicts the study conducted by Istiyani and Nabila<sup>22</sup> which states that the results of his research on exchange rates are able to moderate Islamic stocks' rate of economic growth.

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<sup>18</sup> N.P Anzella, Desmintari, and Sugianto, "Pengaruh Nilai Tukar, Jumlah Uang Beredar Dan Tingkat Inflasi Terhadap Pertumbuhan Ekonomi Di Indonesia.," *Jurnal Ilmu Ekonomi dan Sosial* (2021): 88–100.

<sup>19</sup> Purba, "Analisis Tentang Pertumbuhan Ekonomi Indonesia Periode Tahun 2009 - 2018."

<sup>20</sup> Jonni Manurung and Adler Haymas Manurung, *Ekonomi Keuangan Dan Kebijakan Moneter* (Jakarta: Salemba Empat, 2009).

<sup>21</sup> Amalia Afnan, "Pengaruh Zakat, Infak Dan Sedekah (ZIS), Saham Syariah Dan Pembiayaan Perbankan Syariah Terhadap Pertumbuhan Ekonomi Dengan Nilai Tukar (Kurs) Sebagai Variabel Moderating Di Indonesia Tahun 2012 - 2021," *Skripsi IAIN Salatiga* (2022).

<sup>22</sup> Anisa Istiyani and Rifda Nabila, "Pengaruh Saham Syariah, Sukuk, Dan Reksa Dana Syariah Terhadap Pertumbuhan Ekonomi Indonesia Dengan Nilai Tukar Sebagai Variabel Moderating Tahun 2011-2020," *EKOMA : Jurnal Ekonomi, Manajemen, Akuntansi* (2021): 11–19.

Exchange rates have a very close relationship with the financial system, and fluctuations in exchange rates can affect a country's financial condition. Fluctuations in exchange rates can positively or negatively impact the investment sector in the capital market in Indonesia, in this case, on Islamic stocks. When there is a change in the exchange rate, investors will be more careful when making investments. Depreciation of the exchange rate against foreign currencies, especially the US dollar, negatively influences the capital market and the economy. The correlation between exchange rates and stock prices can be known through the good market approach, where exchange rate fluctuations affect the company's income, which impacts the company's share price.

The positive impact of exchange rate depreciation will only be received by export-oriented companies, such as cheaper raw materials, so the company's performance and income will increase. Meanwhile, import-oriented companies will have a negative impact on stock prices when exchange rate depreciation occurs. When the exchange rate depreciates, it causes an increase in the price of imported raw materials or other related products. This increases the company's production costs while profits are reduced, so the return offered also decreases. Ultimately, it also decreases investors' interest in investing, and the stock price decreases.

Not long ago, various countries, especially Indonesia, had just emerged from the Covid-19 pandemic which caused many companies to experience setbacks. Then, they must face the impact of the Russia-Ukraine and Israel-Palestine conflicts and other conflicts that impact export-oriented companies when shipping goods or import-oriented companies that need goods from related countries to support their production processes. There is also a lawsuit and pressure from the World Trade Organization (WTO) and the International Monetary Fund (IMF) against the government as a result of stopping the export of raw natural resources, which will be processed by the government into finished or semi-finished goods, making the exchange rate unstable. With this explanation, the exchange rate has not been able to moderate the effect of Islamic stocks on economic growth.

#### d. The Effect of Foreign Debt Moderated by Exchange Rate on Economic Growth Rate

Table 8 shows that foreign debt negatively and significantly affects the economic growth rate after being moderated by the exchange rate. It can be seen in the probability value of 0.0183, which means it is smaller than 0.05, and the coefficient value of 0.000189 is negative. So, the hypothesis is accepted because the exchange rate moderates foreign debt at the economic growth rate. It is in line with research conducted by Mubarok<sup>23</sup> In his research, he concluded that the exchange rate was able to moderate foreign debt based on the rate of economic growth. This research contradicts the study conducted by Tahira<sup>24</sup> which the results concluded that the exchange rate was unable to moderate foreign debt on the rate of economic growth.

External debt arises when an economy is faced with a shortage of funds needed to achieve development and other national goals. Using external debt at a sustainable level can stimulate growth and development if used productively. External debt is not a negative problem for a country when it is able to generate returns higher than the cost of borrowing. However, external debt can be malignant if not used wisely and

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<sup>23</sup> Muhamad Zaky Mubarok, "Pengaruh Utang Luar Negeri, Sukuk Dan Pembiayaan Perbankan Syariah Dengan Nilai Tukar Sebagai Variabel Moderasi Terhadap Pertumbuhan Ekonomi Indonesia Tahun 2013 - 2018," *Skripsi IAIN Salatiga* (2021).

<sup>24</sup> Zamruda Tsania Tahira, "Peran Nilai Tukar Dalam Memoderasi Pengaruh Stock Market Development, FDI, Utang Luar Negeri, Ekspor Dan Inflasi Terhadap Pertumbuhan Ekonomi Indonesia," *Skripsi UIN Maulana Malik Ibrahim* (2021).

prudently. In particular, it can create higher fiscal imbalances through more excellent debt servicing, which is partly due to increased future borrowing to repay existing debt.

The debtor country is exposed to the risk of exchange rate differentials when obtaining debt in domestic currency. Real exchange rate depreciation can worsen the balance of institutions in the debtor country, increasing the risk of default, volatility, and economic fragility. External debt is one of the transactions that is highly vulnerable to exchange rate changes. Changes in the exchange rate will cause the external debt burden to change. If the exchange rate appreciates, the external debt burden will decrease, and if the exchange rate depreciates, the external debt burden will increase. This is one of the reasons for the negative effect of foreign debt on economic growth. When the exchange rate depreciates, the debt burden that must be paid will be more significant, resulting in a fiscal imbalance and hamper economic growth.

## **2. Analysis of variables excluded from the regression model**

### **a. The Effect of Sharia Stocks on the National Economic Growth Rate**

The results of the multicollinearity test that has been carried out on the Islamic stock variable (SS) show the presence of multicollinearity symptoms, so it needs to be eliminated from the regression model to cure multicollinearity symptoms. These variable experiences multicollinearity symptoms with the multiplication variable of Islamic stocks and exchange rates (SSNT), so the Islamic stock variable (SS) must be removed from the model by retaining the multiplication variable of exchange rates and Islamic stocks (SSNT) because these variables have a relationship with the national economic growth rate and as variables that have interactions with moderation variables. So, SS will not be included in the next test. Therefore, it can be concluded that the hypothesis is not accepted.

### **b. Effect of Sharia Mutual Funds on National Economic Growth Rate**

The multicollinearity test that was carried out showed that the Islamic mutual fund (RS) variable shows symptoms of multicollinearity. So, it needs to be removed from the regression model in an effort to cure multicollinearity symptoms. The RS variable experiences multicollinearity problems with the multiplication variable of exchange rates and Islamic mutual funds (RSNT) because, considering this, the RSNT variable is not included in the next test. Therefore, it can be concluded that the hypothesis is not accepted.

### **c. The effect of Sharia Mutual Funds on the National Economic Growth Rate after being moderated by the Exchange Rate**

In accordance with the classical assumption test on the multicollinearity test that has been carried out, the multiplication variable of the exchange rate and Islamic mutual funds (RSNT) shows symptoms of multicollinearity. Therefore, it needs to be excluded from the regression model in an effort to cure multicollinearity symptoms. In addition, considering the exclusion of this variable, the symptoms of multicollinearity attack two other variables, namely Islamic mutual funds (RS) and foreign debt (ULN). So, with the existence of a multicollinearity relationship between these variables, the researchers excluded the RSNT variable. Thus, RSNT will not be included in the next test. So, it can be concluded that the hypothesis is not accepted.

In the final MRA regression results, additional results were found, namely,  $157105.759382 * @ISPERIOD("2019Q2") - 410016.87278 * @ISPERIOD("2020Q1") - 1218901.88103 * @ISPERIOD("2021Q1") - 157403.19975 * @ISPERIOD("2022Q1")$ . These results are the findings of outlier data, in which there are parts of the data that are very different from the overall data used. Outlier data is data that deviates from a

set of other data. The presence of outliers can result in the estimation of regression coefficients that are eventually obtained to be inappropriate and produce a biased pattern. Data that includes outliers are data in 2019 quarter II, data in 2020 quarter I, data in 2021 quarter I, and data in 2022 quarter I. Therefore, it was decided to remove the outliers. Therefore, it was decided not to use data affected by outliers in these quarters.

## **Conclusion**

Based on the research results and explanations above, the conclusions that can be drawn are as follows: 1) Sharia stock variables in this study have no conclusion on the economic growth rate because they must be excluded from the model. 2) Sharia mutual fund variables in this study have no conclusion on the economic growth rate because they must be excluded from the model. 3) the foreign debt variable has an influence but is not significant to the national economic growth rate. 4) the exchange rate variable positively and significantly affects the national economic growth rate. 5) The exchange rate variable cannot moderate the effect of Sharia stocks on the national economic growth rate. 6) Sharia mutual fund variables moderated by the exchange rate in this study have no conclusion on the economic growth rate because they must be excluded from the model. 7) The exchange rate variable can moderate the effect of foreign debt on the national economic growth rate.

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