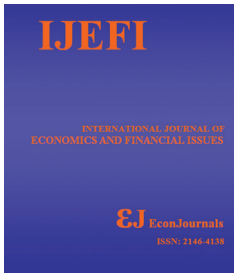

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The Effect of Changes in Macroeconomic Conditions on Indonesian Sharia Stock Return

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ABSTRACT

The Islamic stock market in Indonesia experiences significant fluctuations due to the dynamics of global and domestic macroeconomic conditions. Instability in interest rates, Gross Domestic Product growth, inflation, and exchange rates are the main factors that affect Islamic stock returns, as measured by the Indonesia Islamic Stock Index (ISSI). The urgency of this research is based on the importance of a more comprehensive understanding of the relationship between macroeconomic variables and Islamic stock performance, along with the development of the Islamic financial industry and increasing global economic uncertainty. This study aims to analyse the effect of macroeconomic variables on Islamic stock returns, with the hypothesis that interest rates and inflation have a negative effect, while GDP and exchange rates have a positive effect on Islamic stock returns. The research method used is Robust Least Square covering the period 2015-2023. The results showed that interest rates (−0.0157) and inflation (−0.0656) have a significant negative effect on Islamic stock returns, while GDP (0.0164) and exchange rates (1.5022) have a significant positive effect. The coefficient of determination (R-squared) of 60.14% indicates that this model is able to explain most of the variation in Islamic stock returns due to changes in macroeconomic conditions. The implications of this research include recommendations for regulators, investors, and policy makers in designing strategies that are more adaptive to macroeconomic changes. Interest rate stabilisation and inflation control policies need to be optimised to maintain the attractiveness of the Islamic capital market. In addition, strengthening Islamic financial regulations and diversifying Islamic-based investments are strategic steps to increase market resilience to global economic volatility.

Keywords: Islamic Stock Return, Interest Rate, GDP, Inflation, Exchange Rate, Robust Least Square
JEL Classifications: G12, G15, E44, E52, E58

1. INTRODUCTION

Global financial markets continue to experience dynamics influenced by changes in macroeconomic conditions. Global economic uncertainty, triggered by various factors such as the COVID-19 pandemic, geopolitical tensions, and volatile monetary policies, has had a significant impact on the performance of capital markets, including the Islamic stock market. In Indonesia, the Indonesia Shariah Stock Index (ISSI) serves as the main indicator in measuring the performance of the Islamic stock market, which reflects the development of the shariah-based financial sector. However, high capital market volatility due to changes in interest rates, Gross Domestic Product (GDP) growth, inflation, and exchange rates is still a major challenge in maintaining the stability of Islamic stock returns (Merdad et al., 2015).

Based on data from the Central Bureau of Statistics, Indonesia's GDP growth in 2019 was recorded at 5.02%, but contracted to −2.07% in 2020 due to the COVID-19 pandemic. Economic recovery began in 2021 with growth reaching 3.69% and increased again to 5.31% in 2022. Meanwhile, Bank Indonesia's benchmark interest rate experienced a drastic change from

4.25% in 2019 down to a low of 3.50% in 2021 in response to expansionary monetary policy, before increasing again to 5.75% in 2023 in response to global inflationary pressures. Inflation is also a determinant factor in the dynamics of the Islamic stock market. Indonesia's inflation was recorded at 1.68% in 2021, but experienced a significant spike to 5.51% in 2022 due to global supply chain disruptions and rising energy prices (Sari and Siregar, 2022). In addition, the exchange rate of the rupiah against the US dollar experienced sharp fluctuations, from IDR14,000 per USD in early 2020 to IDR15,500 per USD in 2023. This exchange rate depreciation has the potential to increase import costs, which in turn can affect the profitability of companies in the ISSI and reduce the attractiveness of investing in the Islamic stock market.

The resilience of the Islamic stock market to macroeconomic changes is becoming an increasingly crucial issue, especially with increasing investor interest in sharia-based instruments (Mansour and Abu-Alkheil, 2015). Based on a report by the Financial Services Authority (OJK), the market share of Islamic finance in Indonesia continues to increase, with total Islamic financial assets reaching IDR2,375 trillion in 2022, or around 10.6% of total national financial assets. Islamic stocks that operate based on sharia principles, such as the prohibition of usury (interest) and excessive speculation, are often considered more stable in the face of economic volatility. However, their sensitivity to macroeconomic changes is still a topic that needs to be studied empirically.

Several previous studies have examined the relationship between macroeconomic variables and stock returns. Studies conducted by (Chen et al., 1986) and (Fama and French, 1992) show that interest rates and inflation have a significant influence on stock prices in conventional markets. (Alam and Uddin, 2009) also found a negative correlation between interest rates and stock returns in emerging markets. In the context of Islamic finance, research by (Merdad et al., 2015) indicates that Islamic stocks may have different sensitivity to macroeconomic fluctuations due to their unique financial structure and financial mechanisms that are free from interest-based instruments. However, empirical studies on the impact of macroeconomic variables on ISSI are still very limited, especially in the context of post-pandemic and recent monetary policy.

Theoretically, this research is based on Arbitrage Pricing Theory and the Adaptive Market Hypothesis. Arbitrage Pricing Theory explains that asset prices are influenced by various macroeconomic factors, making it a relevant model to evaluate the impact of economic changes on ISSI returns (Chen et al., 1986). Meanwhile, the Adaptive Market Hypothesis states that market efficiency is dynamic and can change according to economic conditions, so the relationship between macroeconomic indicators and Islamic stock returns is not always linear and can vary under different economic regimes (Lo, 2005).

One of the gaps in the existing literature is the lack of studies that specifically analyse the reaction of the Islamic stock market in Indonesia to macroeconomic changes. Most of the previous studies utilised conventional regression approaches that do not fully address the problem of outliers and heteroscedasticity in financial data (Bouri et al., 2021). Therefore, this study aims to fill the gap with a more robust and comprehensive approach to provide a deeper understanding of the dynamics of the Islamic stock market in the face of macroeconomic fluctuations. This study aims to analyse the effect of changes in macroeconomic conditions on Islamic stock returns in Indonesia by evaluating the impact of interest rates, GDP growth, inflation, and exchange rate fluctuations on the ISSI. By using the RLS estimation method, this study is expected to provide more accurate empirical evidence regarding the determinant factors in the performance of Islamic stocks.

2. LITERATURE REVIEW

2.1. Interest Rate

Interest rates are the main instrument of monetary policy used by central banks to control inflation, economic growth, and financial stability (Mishkin, 2019). In this study, the Bank Indonesia benchmark interest rate (BI-Rate) is used as an indicator of monetary policy that has an impact on investment activity and the Islamic stock market. In the context of financial theory, the relationship between interest rates and stock returns is explained through Capital Asset Pricing Theory and Arbitrage Pricing Theory which states that an increase in interest rates increases the cost of capital for companies, thereby suppressing profit expectations and stock returns. A study conducted by (Alam and Uddin, 2009) using panel regression on emerging markets found that rising interest rates have a negative impact on stock returns. An increase in interest rates can reduce investment in the Islamic financial sector, thereby suppressing Islamic stock returns. Moreover, the impact of interest rates on Islamic stock returns is lower than that of conventional stocks.

2.2. GDP

Gross Domestic Product (GDP) is a leading indicator of economic growth that reflects the total value of goods and services produced in a country in a certain period (Blanchard, 2021). In financial theory, the relationship between GDP and stock returns is explained through the Economic Growth Hypothesis, which states that an increase in GDP will increase people's purchasing power and corporate profits, thereby driving up stock prices. Studies conducted by (Fama, 1990) using econometric models found a positive correlation between GDP growth and stock returns. The relationship between GDP and Islamic stock returns tends to be more stable than conventional stocks due to the characteristics of Islamic finance which is based on real assets and free from excessive speculation.

2.3. Inflation

Inflation is a general increase in the price of goods and services in a period that can reduce people's purchasing power (Samuelson and Nordhaus, 2020). In the context of financial theory, the relationship between inflation and stock returns is explained through the Fisher Effect Theory which states that high inflation causes an increase in nominal interest rates, which in turn increases the company's cost of capital and suppresses stock returns. A study conducted by (Chen et al., 1986) found that inflation has a negative impact

on stock returns because it increases economic uncertainty. Meanwhile, in the Islamic financial system, research by (Merdad et al., 2015) shows that the impact of inflation on Islamic stock returns is not always negative, due to the existence of equity-based mechanisms that are more flexible than conventional financial systems. Another study by (Majid and Yusof, 2009) used the VECM method on the Malaysian Islamic stock market and found that inflation in the long run has a negative relationship with Islamic stock returns, but in the short run the impact varies depending on the monetary policy implemented.

2.4. Exchange Rate

The exchange rate is the price of a country's currency against foreign currencies, which is influenced by various domestic and global economic factors (Krugman and Obstfeld, 2021). In this study, the Rupiah exchange rate against the US Dollar is used as an indicator of economic volatility that can affect Islamic stock returns. Based on the Purchasing Power Parity Theory, exchange rate depreciation causes an increase in the price of imported goods which can reduce the profitability of the company and depress the stock market. Studies by (Dornbusch and Fischer, 1980) show that exchange rate depreciation has a negative impact on the stock market, especially for import-based companies. In the context of the Islamic stock market, a study by (Mansour and Abu-Alkheil, 2019) found that exchange rate fluctuations have a significant impact on the volatility of Islamic stock returns, especially in a more open economy. Another study by (Ibrahim and Muslima, 2022) used the ARDL approach and found that exchange rate appreciation tends to increase Islamic stock returns because it increases the purchasing power of foreign investors on Islamic-based financial assets.

2.5. Islamic Stock Return

Islamic stock returns refer to the level of profit or loss from stock investments that comply with sharia principles. In this study, Islamic stock returns are measured based on changes in the Indonesia Islamic Stock Index (ISSI). According to Modern Portfolio Theory (Markowitz, 1952), Islamic stock returns are influenced by various systematic risk factors, including macroeconomic conditions. A study conducted by (Yusof and Majid, 2007) found that Islamic stock returns are more stable than conventional stocks in the face of financial crisis. The Islamic stock market is more responsive to monetary policy than the conventional stock market. Another study by (Abdullah et al., 2021) used the GARCH method and found that the volatility of Islamic stock returns is lower than conventional stocks and shows its defensive characteristics in the face of global economic shocks.

3. RESEARCH METHODS

3.1. Statistical Analysis

Statistical analysis is a systematic process that includes collecting, organising, interpreting and presenting quantitative data using statistical techniques to identify patterns, trends and relationships in the data (Gao et al., 2023). In the context of this study, statistical analysis is used to evaluate the relationship between interest rates, GDP, inflation, exchange rates and Islamic stocks.

3.2. Classical Assumptions

The classical assumption test is a series of tests conducted to ensure that the regression model used meets the basic assumptions to obtain an unbiased, consistent, and efficient estimate of the model parameters by going through tests of normality, multicollinearity, heteroscedasticity, and autocorrelation (Khan et al., 2023).

3.3. Robust Least Square

Robust regression is a method used to overcome the outlier problem (Delaunay and Yurova, 2024). In this study, the Robust Least Squares (RLS) method is applied as an alternative to overcome the limitations inherent in conventional linear regression models, especially regarding sensitivity to outliers. The Ordinary Least Squares (OLS) method tends to produce inaccurate and biased parameter estimates when facing data containing extreme observations. Robust Least Squares (RLS) offers a more robust approach by introducing a weighting mechanism on the observations, which allows the model to give lower weights to observations with large residuals, thus reducing the impact of outliers on the resulting parameter estimates (Mohamad and Chang, 2023). To evaluate the effectiveness of the resulting model, statistical criteria including Adjusted R-squared, Akaike Information Criterion (AIC), and Bayesian Information Criterion (BIC) are used, which aim to ensure that the model is not only robust to outliers, but also able to provide valid and accurate estimates.

Mathematically, the regression model of this study is structured as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \quad (1)$$

Description:
Y: Sharia Stock Return
β_0: Intercept
β_1, β_2: Regression Coefficient
X_1: Interest Rate
X_2: GDP
X_3: Inflation
X_4: Exchange Rate
ε: Error Term

3.4. Statistical Test t (Partial Test)

In research, the significance of the effect of the independent variable on the dependent variable is seen through the t statistical test (Widarjono, 2018). In its use, if t-count> t-table or significance is less than (α) 5%, this indicates that there is a partially significant effect between the independent variable and the dependent variable (Gujarati, 2006).

The hypothesis in this test is:
H_0: $\beta i < 0$ There is no significant effect between the independent variable and the dependent variable partially
H_a: $\beta i > 0$ There is a significant influence between the independent variables on the dependent variable partially

The test criteria are as follows:
1. If t-statistic > t-table then H_0 is rejected. The independent variable has a significant effect on the dependent variable.

2. If t-statistic < t-table then H_0 is accepted. The independent variable does not have a significant effect on the dependent variable.

3.5. F Statistical Test

The F-statistic test is used to show how the independent variables interact with each other and have an impact on the dependent variable (Wooldridge, 2013). If the F-count exceeds the F-table in the test, then simultaneously the independent variables have a considerable influence on the dependent variable, or the data is consistent with the research hypothesis.

H_0: βi < 0 There is no significant influence between the independent variables on the dependent variable together

H_a: βi > 0 There is a significant influence between the independent variables on the dependent variable together.

The test criteria are as follows:

1. If F-statistic > F-table then H_0 is rejected. The independent variable on the dependent variable has a statistically significant effect together.
2. If F-statistic < F-table then H_0 is accepted. The independent variable on the dependent variable does not have a statistically significant effect together.

3.6. F Test Coefficient of Determination (R^2)

According to Widarjono (2018), the coefficient of determination (R^2) is used to measure the proportion of the contribution of the independent variable in explaining the dependent variable. An R^2 value close to one indicates that the regression model has a good ability to explain data variability, while an R^2 value close to zero indicates limited ability. However, R^2 has the disadvantage that it tends to increase with the addition of independent variables, even though these variables do not necessarily increase the predictive power of the model. Therefore, adjusted R-square is used which corrects for the addition of irrelevant independent variables, so that the adjusted R-square value will not exceed R-square and may decrease or become negative if the addition of independent variables does not improve the quality of the model or if the model shows a low level of fit.

4. RESULTS

4.1. Descriptive Statistical Analysis

Descriptive Statistical Analysis functions in descriptions that include the mean and median of a set of sorted data. In addition, this analysis includes data distribution such as maximum value, minimum value, and standard deviation value as an indicator of data distribution in the study (Jin et al., 2023).

The results of the analysis in Table 1 show that interest rates have an average value of 6.471% with significant fluctuations, characterised by a maximum value of 9.986% and a minimum of −0.955%, indicating a fairly aggressive monetary policy dynamic during the 2015-2023 study period. Meanwhile, economic growth as measured by GDP showed an average of 4.130%, with a maximum value of 5.307% and a minimum of −2.066%, reflecting a period of economic contraction caused by external shocks and domestic factors. Inflation was within a relatively stable range with an average of 1.173%, a maximum of 1.851%, and a minimum of 0.445%, indicating the effectiveness of monetary policy in maintaining price stability. The exchange rate showed a high level of stability with an average of 9.557 and a relatively small variation between the maximum value of 9.631 and the minimum of 9.496, which could reflect the exchange rate stabilisation policy implemented by the monetary authority. On the other hand, Islamic stock returns show high stability, with an average of 5.340%, a maximum of 5.380%, and a minimum of 5.274%, which indicates that although the Islamic stock market in Indonesia is affected by macroeconomic dynamics, its volatility remains under control.

4.2. Classical Assumptions

Based on the normality test shown in Figure 1, the probability value is 0.737933 > 0.05. Furthermore, the Jarque-Bera value is less than the Chi-Square critical value, which indicates that the data follows a normal distribution pattern.

Based on the multicollinearity test results presented in Table 2, none of the independent variables exhibit a correlation coefficient exceeding the threshold of 0.8. This indicates the absence of significant multicollinearity among the explanatory variables employed in this study. In other words, the variables do not demonstrate a strong linear relationship or critical interdependence, thereby confirming the reliability of the regression model in terms of multicollinearity assumptions.

4.3. Robust Least Square Test

Based on Table 3 shows the results of the regression calculation between the confidence level at 0.5% and then transformed into mathematical form as follows:

$$Y = -9.58578687449 - 0.015693834714*X_1 + 0.0164264434097*X_2 - 0.0656361271744*X_3 + 1.50219211055*X_4$$

4.4. Statistical Test t (Partial Test)

Table 4 shows the following results:

The interest rate coefficient (X1) of -0.015694 indicates that every 1 unit increase in interest rates will reduce Islamic stock returns (Y) by 0.015694 assuming other variables remain constant. The z-statistic value is -9.597032 at the 5% significance level, and the

Table 1: Statistical analysis

Statistical classifications	X_1	X_2	X_3	X_4	Y
Mean	6.471375	4.129517	1.172721	9.557134	5.339912
Median	7.281955	5.033069	1.260109	9.563595	5.348820
Maximum	9.985927	5.307419	1.850519	9.631474	5.379851
Minimum	−0.955297	−2.065512	0.444769	9.496145	5.273922

Source: Research results year 2025

Table 2: Multicollinearity test

	Correlation			
Coefficient variable	X_1	X_2	X_3	X_4
X_1	1.000000	−0.337242	0.034240	−0.375209
X_2	−0.337242	1.000000	0.587279	−0.227622
X_3	0.034240	0.587279	1.000000	−0.331987
X_4	−0.375209	−0.227622	−0.331987	1.000000

Source: Research results year 2025

Table 3: Robust least square test

Variable	Coefficient	Standard Error	z-Statistic	Probability
X_1	−0.015694	0.001635	−9.597032	0.0000
X_2	0.016426	0.002707	6.067379	0.0000
X_3	−0.065636	0.008010	−8.194706	0.0000
X_4	1.502192	0.149761	10.03057	0.0000
C	−9.585787	1.492590	−6.422251	0.0000
Robust statistics				
R-squared	0.601408	Adjusted R-squared		−0.062911
Rw-squared	0.993341	Adjust Rw-squared		0.993341
Akaike info criterion	23.09464	Schwarz criterion		30.99212
Deviance	0.000191	Scale		0.003275
Rn-squared statistic	158.1231	Probability (Rn-squared statistic)		0.000000
Non-robust statistics				
Mean dependent var	5.339912	S.D. dependent var		0.034973
S.E. of regression	0.045948	Sum squared resid		0.006334

Source: Research results Year 2025

probability value (0.0000) is smaller than 0.05. Therefore, it can be concluded that interest rates have a negative and significant effect on Islamic stock returns partially.

The GDP coefficient (X2) of 0.016426 indicates that every 1 unit increase in GDP will increase Islamic stock returns (Y) by 0.016426 assuming other variables remain constant. The z-statistic value is 6.067379 at the 5% significance level, and the probability value (0.0000) is smaller than 0.05. Therefore, it can be concluded that GDP has a positive and significant effect on Islamic stock returns partially.

The coefficient of inflation (X3) of -0.065636 indicates that every 1 unit increase in inflation will reduce Islamic stock returns (Y) by 0.065636 assuming other variables remain constant. The z-statistic value is -8.194706 at the 5% significance level, and the probability value (0.0000) is smaller than 0.05. Therefore, it can be concluded that inflation has a negative and significant effect on Islamic stock returns partially.

The coefficient of exchange rate (X4) of 1.502192 indicates that every 1 unit increase in the exchange rate will increase Islamic stock returns (Y) by 1.502192 assuming other variables remain constant. The z-statistic value is 10.03057 at the 5% significance level, and the probability value (0.0000) is smaller than 0.05. Therefore, it can be concluded that the exchange rate has a positive and significant effect on Islamic stock returns partially.

4.5. F Statistical Test

Table 5 presents the F-test results for the overall model significance. The F test is a statistical test conducted to determine how much influence the independent variables together have on the dependent variable. In the Robust Least Square estimation results, the probability value is 0.0000 and significant at the 5% level. So it can be concluded that interest rates (X1), GDP (X2), Inflation (X3), and exchange rates (X4) together or simultaneously have a significant effect on Islamic stock returns (Y).

Table 4: T-statistic test

Variable	z-Statistik	t-table	Probability	Conclusion
(X_1)	−9.597032	2.132	0.0000	H_0 rejected
(X_2)	6.067379	2.132	0.0000	H_0 rejected
(X_3)	−8.194706	2.132	0.0000	H_0 rejected
(X_4)	10.03057	2.132	0.0000	H_0 rejected

Source: Research results year 2025

Table 5: F statistical test

Rn-squared statistic	Probability	Conclusion
158,1231	0.0000	H_0 rejected

Source: Research results year 2025

4.6. Result of the Coefficient of Determinations (R^2)

The coefficient of determination is used to measure how much variation in the dependent variable can be explained by variations in the independent variables. In this study, the coefficient of determination is carried out to determine how much the percentage of interest rate variables (X_1), GDP (X_2), Inflation (X_3), and exchange rates (X_4) together or simultaneously have a significant effect on Islamic stock returns (Y). Based on the analysis of the value of the coefficient of determination (R^2) of 0.601408. This means that the influence of the variation of the independent variables on the variation of the dependent variable is 60.14% while the remaining 39.86% is explained by variables outside the model.

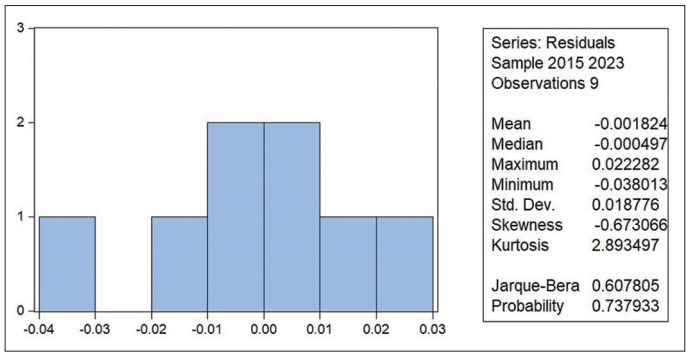
5. DISCUSSION

5.1. Significance of Interest Rates on Islamic Stock Returns

Interest rates are a key instrument in monetary policy that has a broad impact on financial markets, including the stock market. In a conventional economic system, interest rates serve as the main control tool to regulate inflation rates, economic growth, and monetary stability. When interest rates rise, the cost of borrowing for companies increases, which in turn affects investment decisions, business expansion, and profitability. Conversely, a decrease in interest rates can stimulate investment and consumption due to lower borrowing costs, thereby increasing overall economic activity (Trinanda and Sairin, 2024). The impact of interest rate changes on global financial markets has been a major concern for regulators and investors, given their important role in determining capital flows and market sentiment.

In the context of the stock market, the relationship between interest rates and stock returns has been the subject of extensive studies in the economic and financial literature. Conventional stock markets generally exhibit a negative relationship between interest rates and stock returns, which is due to the increased cost of capital as a result of rising interest rates. With an increase in the cost of capital, companies tend to experience a decrease in profitability, which impacts their share price. In addition, investors also shift funds to fixed income-based financial instruments, such as bonds, which offer more attractive returns when interest rates increase. However, in the Islamic stock market, this dynamic is more complex. Islamic stocks do not use interest-based instruments (riba), so they are theoretically more resistant to changes in interest rates. However, in practice, Islamic stocks are still affected by interest rate changes

Figure 1: Normality test



Source: Research results year 2025

through the cost of capital mechanism and investor expectations. An increase in interest rates can increase financing costs for Islamic companies that rely on equity-based instruments, thereby reducing profitability and Islamic stock returns (Aquino, 2021).

The Robust Least Square regression results in this study show that interest rates have a significant negative effect on Islamic stock returns, with a regression coefficient of −0.015694 and a P = 0.0000. This result indicates that every 1% increase in interest rates will reduce Islamic stock returns by 0.0157%. The adjusted R-squared value of 60.14% indicates that this model has a fairly good ability to explain variations in Islamic stock returns caused by changes in interest rates. This finding is in line with the Arbitrage Pricing Theory, which states that stock returns are influenced by various macroeconomic factors, including interest rates. An increase in interest rates encourages investors to shift capital to more stable interest-based assets, thereby reducing demand for Islamic stocks and suppressing stock returns (Gusni and Riantani, 2017). Analysis based on the time period shows that there are differences in the impact of interest rates on Islamic stock returns in various economic conditions. During the period 2015-2019, the stability of interest rates in the range of 4-6% kept the liquidity of the Islamic stock market strong, with stable capital flows and relatively low levels of volatility. However, in 2020, the COVID-19 pandemic pushed interest rates down to 3.5%, which increased investor interest in Islamic stocks due to the decline in the attractiveness of fixed income-based instruments. Meanwhile, in the 2022-2023 period, interest rates increased again to 5.75%, causing capital outflows from the Islamic stock market and increasing market volatility.

Within the framework of Islamic finance theory, the prohibition of usury makes Islamic companies more resilient to changes in interest rates than conventional companies. However, the impact of interest rates on the Islamic stock market remains through indirect mechanisms, such as the cost of financing and investor sentiment. In the Adaptive Market Hypothesis theory, market efficiency changes according to economic conditions, which means that the Islamic stock market is more stable in the long run than the conventional stock market, although it still experiences the impact of interest rate fluctuations in the short term. Several previous studies support the findings of this research. A study conducted by (Mulyadi, 2022) found that interest rates have a negative effect on the Islamic stock index with a contribution of 8%, while research by (Indarwati, 2021) showed that interest rates have no significant effect on Islamic stock market volatility. This difference in findings reflects the complexity of the relationship between interest rates and the Islamic stock market, which can vary depending on economic conditions, monetary policy, and financial market structure.

The mechanism of the impact of interest rates on Islamic stock returns can be explained through direct and indirect mechanisms (Aquino, 2021). Directly, an increase in interest rates increases the cost of capital for Islamic companies, which in turn decreases their profitability and stock returns. In addition, investors tend to shift investments to fixed income-based instruments such as sukuk and Islamic deposits, which are more attractive in a high interest rate environment. Rising interest rates also increase the cost of financing for Islamic companies that rely on equity-based financing, thereby reducing growth potential. Indirectly, tightening monetary policy can reduce liquidity in the market, leading to a decline in investment activity and investor exposure to Islamic stocks. Psychological impact also plays an important role, where rising interest rates encourage investors to seek safer assets, especially for conservative investors who tend to avoid high volatility in Islamic stocks. In addition, the dependence of the Islamic stock market on economic stability is also influential, where in stable economic conditions, Islamic stocks are more attractive, while in conditions of high interest rates and increased volatility, investors prefer to diversify into safer assets.

5.2. Significance of Gross Domestic Product on Islamic Stock Returns

Gross Domestic Product is a fundamental indicator in the economy that reflects the level of economic activity of a country. An increasing GDP indicates economic expansion characterized by increased production, consumption, and investment. In the context of financial markets, GDP growth is often associated with improved capital market performance, including the Islamic stock market (Afendi, 2017). This is due to increased public purchasing power, increased corporate profits, and increased investor optimism about future economic prospects. In Islamic economics, the Islamic stock market is more closely related to real economic growth because it is based on the principle of profit sharing and investment in productive sectors (Wahyudi et al., 2023).

The Robust Least Square estimation results in this study show that GDP has a significant positive effect on Islamic stock returns, with a regression coefficient of 0.016426 and a P = 0.0000. This result indicates that every 1% increase in GDP will increase Islamic stock returns by 0.0164%. The adjusted R-squared value of 60.14% indicates that this model has a fairly good ability to explain variations in Islamic stock returns caused by changes in GDP. This finding is in line with the theory of economic growth proposed by (Fama, 1990), which states that economic growth increases corporate profits, which in turn drives up stock prices.

The Economic Growth Hypothesis states that an increase in GDP will increase people's purchasing power, which has an impact on increasing consumption and production levels, and indirectly increases stock returns (Chordia and Gurbani, 2020). Analysis based on the time period shows that there are differences in the

impact of GDP on Islamic stock returns in various economic conditions. In the 2015-2019 period, Indonesia's stable GDP growth of around 5% provided support for the growth of the Islamic stock market, reflecting economic conditions conducive to investment in the Islamic financial sector. However, in 2020, a GDP contraction of -2.07% due to the COVID-19 pandemic had a negative impact on the Islamic stock market, reflecting high economic uncertainty and a decline in business activity. In 2021-2023, GDP growth was again above 5%, which was accompanied by a recovery in the Islamic stock market due to increased investor confidence and improved performance of companies listed in the Indonesian Sharia Stock Index (ISSI).

The mechanism of the impact of GDP on Islamic stock returns can be explained through direct and indirect mechanisms. Directly, high economic growth increases corporate income, which in turn increases dividends and firm value, so that Islamic stock returns increase (Permatasari and Sulistyowati, 2023). In addition, investors' optimism towards improved economic conditions led to an increase in demand for Islamic stocks, which in turn led to an increase in share prices. Indirectly, fiscal and monetary policies that support economic growth, such as investment incentives, company-friendly tax policies, and increased infrastructure spending, contribute to the growth of the Islamic capital market. Psychological factors also play a role in determining the relationship between GDP and Islamic stock returns, where in conditions of stable economic growth, investors tend to be more confident to invest in Islamic stocks, while in conditions of recession, investors are more conservative and tend to avoid high risks.

From an Islamic finance perspective, Islamic stocks are more reflective of real economic growth than conventional stocks, as they are based on equity and real assets and are not affected by excessive speculation. These characteristics make the Islamic stock market more stable in the long run, although it still experiences volatility in the short term due to macroeconomic changes. In the context of the Adaptive Market Hypothesis, the response of stock returns to GDP is not always linear and may change depending on the economic cycle (Hamsah et al., 2024). In the economic expansion phase, Islamic stock returns tend to increase higher, but in the contraction phase, the sensitivity may differ depending on the industry sector that dominates the Islamic stock index.

5.3. Significance of Inflation on Islamic Stock Returns

Inflation is one of the main indicators in assessing the economic stability of a country. High inflation can lead to economic instability and reduce people's purchasing power. Uncontrolled inflation also has an impact on financial markets, including the Islamic stock market, because it can increase economic uncertainty and reduce liquidity in the capital market (Wulandari et al., 2021). In the Islamic financial system, Islamic stocks have different characteristics than conventional stocks because they are based on real assets, which in theory are more resistant to inflation fluctuations. However, in conditions of high inflation, the declining purchasing power of the public can cause pressure on the profitability of Islamic companies, thus having an impact on Islamic stock returns.

The Robust Least Square regression results in this study show that inflation has a negative and significant effect on Islamic stock returns, with a regression coefficient of −0.065636 and a P = 0.0000. This finding indicates that every 1% increase in inflation will reduce Islamic stock returns by 0.0656%. The adjusted R-squared value of 60.14% indicates that the regression model is sufficient to explain the variation in Islamic stock returns due to changes in inflation. This result is consistent with the Fisher Effect theory, which states that high inflation causes an increase in nominal interest rates, which in turn increases the cost of capital for companies and reduces stock return expectations (Suryani and Sudiartha, 2018).

Arbitrage Pricing Theory explains that stock returns are influenced by macroeconomic factors, including inflation (Gusni and Riantani, 2017). When inflation increases, investors tend to divert capital to safer assets such as gold or sukuk, so the demand for Islamic stocks decreases. Analysis based on the time period shows that the impact of inflation on Islamic stock returns varies. In the period 2015-2019, Indonesia's inflation was relatively controlled at around 3-4%, so the impact on Islamic stocks was still moderate. In 2020, inflation fell to 1.68% due to the COVID-19 pandemic, which increased people's purchasing power and supported the increase in Islamic stock returns. However, in the 2022-2023 period, inflation jumped to 5.51% due to rising energy prices and global supply chain disruptions, causing significant pressure on the Islamic stock market. This increase in inflation increases production costs and reduces the profit margins of Islamic companies, which in turn suppresses Islamic stock returns.

The mechanism of inflation's impact on Islamic stock returns can be explained through direct and indirect mechanisms. Directly, high inflation increases the company's production costs, especially for sectors that depend on imported raw materials, thus reducing profitability and Islamic stock returns (Amri and Gultom, 2022). In addition, high inflation can increase the cost of capital due to the increase in interest rates imposed by monetary authorities to control inflation, which reduces investors' interest in the stock market. Indirectly, tightening monetary policy in response to inflation may lead to an increase in interest rates and a reduction in liquidity in the stock market. The psychological impact on investors is also significant, where under high inflation conditions, investors tend to avoid more volatile assets such as Islamic stocks and prefer fixed income-based financial instruments such as sukuk and Islamic deposits.

From an Islamic finance perspective, even though Islamic companies do not have interest expense in their financial structure, there is still a negative impact of high inflation. Under moderate inflation conditions, some Islamic sectors such as energy and commodities can benefit due to rising prices of goods, but under conditions of excessive inflation, people's purchasing power decreases dramatically, which results in a decrease in demand for goods and services and a decline in the profits of Islamic companies. Within the framework of the Adaptive Market Hypothesis, the impact of inflation on Islamic stock returns can change according to market conditions, where in times of low inflation, Islamic stocks are more attractive, while in times of high inflation, market

volatility increases and investors are more cautious in making investment decisions (Dhankar and Shankar, 2016).

5.4. Significance of Exchange Rate on Islamic Stock Return

Exchange rates play an important role in economic and capital market stability, reflecting a country's economic fundamentals and affecting the competitiveness of exports and imports. Fluctuations in exchange rates have a direct impact on capital flows, production costs and corporate profitability, which in turn will affect stock market performance, including the Islamic stock market. In the context of the Indonesian economy, the Rupiah exchange rate against the US Dollar is experiencing high volatility, amounting to Rp14,000/USD in 2020 until it reaches Rp15,500/USD in 2023. These exchange rate changes have a significant impact on Islamic stock returns as many companies in the Indonesian Sharia Stock Index (ISSI) have exposure to international trade and import-based production costs (Saputra and Herlambang, 2015).

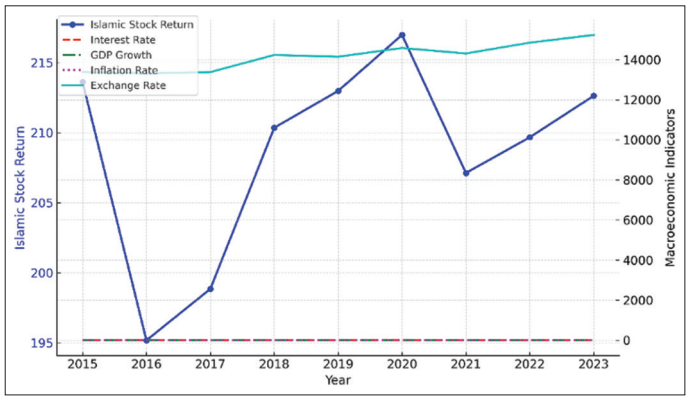
The Robust Least Square regression results in this study show that the exchange rate has a positive and significant effect on Islamic stock returns, with a regression coefficient of 1.502192 and a P = 0.0000. This means that every 1 unit increase in the exchange rate will increase Islamic stock returns by 1.5022%. The adjusted R-squared value of 60.14% indicates that this model is quite good at explaining variations in Islamic stock returns due to changes in exchange rates. This finding is consistent with the Purchasing Power Parity theory which explains that exchange rate depreciation causes an increase in the price of imported goods, which can reduce people's purchasing power and suppress corporate profits. In addition, in the perspective of Arbitrage Pricing Theory, the exchange rate is one of the macroeconomic factors that affect stock returns (Gusni and Riantani, 2017). Rupiah depreciation tends to attract foreign investors to increase investment in the Indonesian stock market, including the Islamic stock market, thus encouraging an increase in Islamic stock returns.

The impact of exchange rates on Islamic stock returns may vary depending on the economic conditions and business sectors of companies listed in the ISSI.

Figure 2 illustrates the temporal relationship between Islamic stock returns and macroeconomic indicators throughout the study period. In the 2015-2019 period, the Rupiah exchange rate was relatively stable in the range of IDR13,500-IDR14,500/USD, so the impact on Islamic stock returns tended to be moderate. However, in 2020, the COVID-19 pandemic caused a sharp weakening of the Rupiah, increasing stock market volatility. Meanwhile, in 2022-2023, the depreciation of the Rupiah to IDR15,500/USD causes an influx of foreign capital into the Islamic stock market, thus increasing Islamic stock returns. In this case, export-based issuers tend to benefit from the weakening Rupiah as their products become more competitive in the global market. Conversely, companies in the ISSI that depend on imported raw materials face increased production costs, potentially suppressing profitability and stock returns.

The mechanism of exchange rate impact on Islamic stock returns can be explained through direct and indirect mechanisms. Directly,

Figure 2: Islamic stock return and macroeconomic indicators



Rupiah depreciation increases the purchasing power of foreign investors towards Islamic stocks, thus increasing the demand for stocks and pushing up Islamic stock returns. In addition, export-based companies in ISSI tend to experience increased profits as product prices are more competitive in the international market. However, for companies that rely heavily on imported raw materials, Rupiah depreciation increases production costs, which can depress profits and reduce the attractiveness of their shares. Indirectly, exchange rate fluctuations can lead to economic instability, which increases risk for investors and affects capital flows to the Islamic stock market (Amri and Gultom, 2022). Investors tend to be more cautious in the face of exchange rate volatility, especially if the movement of the Rupiah is unstable in the long run.

From an Islamic finance perspective, the Islamic stock market is more based on real assets, so its response to changes in the exchange rate may be different compared to conventional stocks. Exchange rate fluctuations can have a significant impact on Islamic stocks that have high exposure to international trade, but the impact is more moderate compared to conventional stocks due to Islamic principles that limit speculation. Within the framework of the Adaptive Market Hypothesis, the sensitivity of the Islamic stock market to exchange rate changes may vary depending on macroeconomic conditions and investor adaptation strategies (Rizvi et al., 2019). Exchange rate fluctuations have a significant impact on share price movements in the ISSI, especially if the majority of companies in the ISSI are importers, a weakening Rupiah will have a negative impact due to increased production costs, which causes profit margins to fall and share prices to decline. However, if the majority of companies in the ISSI are exporters, the depreciation of the Rupiah can actually have a positive impact as increased revenue in foreign currency can increase profitability and attract more investors. A weakening Rupiah can also benefit export-based companies, as the price of their products becomes more competitive in the global market and increases USD-denominated revenues.

6. CONCLUSION AND SUGGESTIONS

The findings of this study indicate that the dynamics of macroeconomic conditions have a significant impact on Islamic stock returns in Indonesia. Increases in interest rates and inflation contribute negatively to Islamic stock returns, while GDP growth

and exchange rate appreciation have a significant positive impact. Rising interest rates increase the cost of capital, thereby suppressing investment activity and reducing the profitability of Islamic companies. High inflation reduces people's purchasing power and increases production costs, which in turn negatively impacts investors' profit expectations. Conversely, strong economic growth boosts corporate earnings and encourages investor optimism, while exchange rate appreciation strengthens the competitiveness of export-based companies and attracts more foreign investment into the Islamic stock market.

REFERENCES

Abdullah, A., Hassan, R., Mohamad, S. (2021), Volatility of Islamic and conventional stock markets: A comparative study using GARCH models. Journal of Islamic Accounting and Business Research, 12(4), 567-583.

Afendi, A. (2017), The effect of macroeconomic variables on the stock index in the Jakarta Islamic index (JII) (Period 2012-2016), SEGMENT Journal of Management and Business, 13(2).

Alam, M.N., Uddin, M.G.S. (2009), Relationship between interest rate and stock price: Empirical evidence from developed and developing countries. International Journal of Business and Management, 4(3), 43-51.

Amri, A., Gultom, M.S. (2022), Overview of stock prices in terms of inflation, rupiah exchange rate, and interest rates: Case study of companies listed in the LQ45 Index. J-EBIS Journal of Economics and Islamic Business, 7(2), 207-228.

Aquino, A. (2021), The effect of inflation rate, interest rate and rupiah exchange rate on sharia stock returns on the Indonesia stock exchange. Journal of Competitiveness, 7(1), 1-15.

Blanchard, O. (2021), Macroeconomics. 8th ed. United Kingdom: Pearson.

Bouri, E., Jain, A., Roubaud, D., Shahzad, S.J.H. (2021), A tale of two shocks: What do we learn from the impact of economic policy uncertainty on Islamic and conventional stocks? International Review of Financial Analysis, 74, 101676.

Chen, N., Roll, R., Ross, S.A. (1986), Economic forces and the stock market. Journal of Business, 59(3), 383-403.

Chordia, A., Gurbani, K. (2020), How is economic growth correlated to index growth? Journal of Student Research, 9(2), 1-10.

Delaunay, A., Yurova, E. (2024), Robust regression techniques: Addressing outlier sensitivity. Journal of Statistical Research, 47(1), 33-47.

Dhankar, R.S., Shankar, D. (2016), Relevance and evolution of adaptive markets hypothesis: A review. Journal of Indian Business Research, 8(3), 166-179.

Dornbusch, R., Fischer, S. (1980), Exchange rates and the current account. American Economic Review, 70(5), 960-971.

Fama, E.F. (1990), Stock returns, expected returns, and real activity. Journal of Finance, 45(4), 1089-1108.

Fama, E.F., French, K.R. (1992), The cross-section of expected stock returns. Journal of Finance, 47(2), 427-465.

Gao, Z., Liu, Y., Chen, X. (2023), Statistical analysis in development economics: Methods and applications. Journal of Economic Analysis, 50(1), 123-139.

Gujarati, D.N. (2006), Essentials of Econometrics. 3rd ed. United States: McGraw-Hill.

Gusni, G., Riantani, S. (2017), The use of arbitrage pricing theory to analyse sharia stock returns. Ultima Management: Journal of Management Science, 9(1), 68-84.

Hamsah, H., Megawati, D., Hidayat, N. (2024), The effect of sharia stocks and sharia bonds (Sukuk) on Indonesia's Economic Growth. Journal of Sharia and Law, 3(2), 430-449.

Ibrahim, M.H., Muslima, A. (2022), Exchange rate movements and Islamic stock indices: Evidence from ARDL approach. Journal of Islamic Financial Studies, 8(1), 45-60.

Indarwati, S. (2021), Analysis of islamic stock market volatility to interest rate changes. Journal of Islamic Finance and Banking, 9(1), 45-58.

Jin, L., Wang, H., Zhao, Y. (2023), Descriptive statistical methods and their application in economic research. Journal of Economic Statistics, 42(3), 123-137.

Khan, M.A., Saeed, A., Raza, S. (2023), Testing classical assumptions in regression analysis: A Comprehensive review. Journal of Applied Statistics, 50(2), 195-210.

Krugman, P.R., Obstfeld, M. (2021), International Economics: Theory and Policy. 12th ed. United Kingdom: Pearson.

Lo, A.W. (2005), Reconciling efficient markets with behavioral finance: The adaptive markets hypothesis. Journal of Investment Consulting, 7(2), 21-44.

Majid, M.S.A., Yusof, R.M. (2009), Long-run relationship between Islamic stock returns and macroeconomic variables: An application of the autoregressive distributed lag model. Humanomics, 25(2), 127-141.

Mansour, W., Abu-Alkheil, A. (2019), The impact of exchange rate volatility on Islamic equity indices: Evidence from quantile regression analysis. Journal of Islamic Accounting and Business Research, 10(4), 512-530.

Mansour, W., Abu-Alkheil, A.M. (2015), An analysis of the risk-return relationship of Islamic stock indices: The case of Dow Jones Islamic indices. Journal of Economics and Business, 78, 1-26.

Markowitz, H. (1952), Portfolio selection. The Journal of Finance, 7(1), 77-91.

Merdad, H., Hassan, K., Hippler, W. (2015), The impact of interest rates on Islamic and conventional stocks in the GCC: Evidence from quantile regression analysis. Emerging Markets Review, 22, 47-64.

Merdad, H., Hassan, M.K., Hippler, W.J. (2015), Islamic equity indices: Insights from Dow Jones Islamic market index. Journal of Economic Cooperation and Development, 36(1), 107-126.

Mishkin, F.S. (2019), The Economics of Money, Banking, and Financial Markets. 12th ed. United Kingdom: Pearson.

Mohamad, S.A., Chang, H. (2023), Robust least squares: An effective approach for outlier management. Journal of Applied Statistics, 43(4), 375-390.

Mulyadi, A. (2022), The effect of interest rates on the islamic stock index in Indonesia. Journal of Islamic Economics, 14(2), 123-135.

Permatasari, A., Sulistyowati, H. (2023), The effect of inflation, exchange rate, gross domestic product, and company growth on stock returns of chemical, pharmaceutical, and traditional medicine industry companies for the 2016-2021 Period. Journal of Accounting, Management, and Islamic Economics, 10(3), 705-720.

Rizvi, S.A.R., Arshad, S., Alam, N. (2019), Relevance of adaptive market hypothesis in emerging markets: Evidence from Pakistan. Global Business Review, 20(3), 640-654.

Samuelson, P.A., Nordhaus, W.D. (2020), Economics. 20th ed. United States: McGraw-Hill.

Saputra, I.D., Herlambang, L. (2015), The effect of rupiah exchange rate on stock price index (study on Indonesian sharia stock index 2011-2013 period). Journal of Islamic Economics Theory and Applied, 1(12), 832-840.

Sari, M., Siregar, H. (2022), The effect of inflation and exchange rate on the Indonesian sharia stock index (ISSI). Journal of Islamic Economics, Accounting, and Banking, 6(2), 123-135.

Suryani, L.P., Sudiartha, I.M. (2018), The effect of inflation, exchange rates, and interest rates on stock returns in property and real estate companies. E-Journal of Management, Udayana University, 7(7), 3791-3818.

Trinanda, A., Sairin, S. (2024), The Effect of Exchange Rate and Interest Rate on the Composite Stock Price Index (JCI) on the Indonesia Stock Exchange for the Period 2012-2023. Journal of Management Operations [JURAMA], 1(3), 223-232.

Wahyudi, H., Palupi, W.A. (2023), What is the short-term and long-term relationship between renewable energy and investment in economic growth? International Journal of Energy Economics and Policy, 13(3), 46-55.

Widarjono, A. (2018), Econometrics: Theory and Applications. Yogyakarta: UPP STIMYKPN.

Wooldridge, J.M. (2013), Introductory Econometrics: A Modern Approach. 5th ed. United States: Cengage Learning.

Wulandari, W., Suhono, S., Manda, G.S. (2021), The effect of interest rates and inflation on stock returns in LQ 45 indexed manufacturing companies for the 2016-2020 period. MEA Scientific Journal (Management, Economics, and Accounting), 5(2), 1043-1049.

Yusof, R.M., Majid, M.S.A. (2007), Stock market volatility transmission in Malaysia: Islamic versus conventional stock market. Journal of King Abdulaziz University: Islamic Economics, 20(2), 17-35.