JPEB Vol. 11, No. 1, 2026, pp: 1 - 12

JPEB

Jurnal Penelitian Ekonomi dan Bisnis

journal homepage: http://jpeb.dinus.ac.id

# Dynamics of Macroeconomic Variables on Syariah Stock Returns in Asean Region: ARDL Analysis

Abdul Azis. R[1]✉, Muhammad Yunus Kasim[2], I Kadek Belyoni Dwijaya[3], Nini Andriani[4], Ayu Putri Utami[5]

[1,2,4,5] Department of Management, Faculty of Economics and Business, Tadulako University, Indonesia
[3]Department of Management, Faculty of Economics and Business, University Abdul Azis Lamadjido, Indonesia

## Article Information

*Article history:*
Submitted: November 2025
Revised: February 2026
Accepted: March 2026

*Keywords:*
Inflation, GDP, Foreign Exchange Reserves, Sharia Stock Return, ARDL Panel

## Abstract

*This study investigates the temporal impact of macroeconomic indicators—specifically inflation, GDP growth, and foreign exchange reserves—on Islamic stock returns within the ASEAN region, focusing on both short-term and long-term effects. Employing a quantitative approach with a causal design, the research utilizes the ARDL Panel model to analyze quarterly data from Sharia stock indices in Indonesia, Malaysia, Thailand, and Singapore spanning 2014 to 2023. The findings indicate that inflation negatively affects Islamic stock returns in the long term, while its short-term impact is minimal. In contrast, economic growth is found to enhance Islamic stock returns in both timeframes. Regarding foreign exchange reserves, the analysis reveals a negative long-term effect but a positive short-term effect. These conclusions highlight the importance for investors and regulators to consider macroeconomic dynamics when developing investment strategies.*

How to Cite: R., A. A., Kasim, M. Y. ., Dwijaya, I. K. B. ., Andriani, N. ., & Utami, A. P. . Dynamics of Macroeconomic Variables on Syariah Stock Returns in Asean Region: ARDL Analysis. *Jurnal Penelitian Ekonomi Dan Bisnis*, *11*(1), 1–12. https://doi.org/10.33633/jpeb.v11i1.12461

✉correspondence address:
Fakultas Ekonomi dan Bisnis Universitas Tadulako, Jalan Soekarno Hatta Kota Palu
E-mail: abdulazis.r09@gmail.com

ISSN
2442-5028 (print) 2460-4291 (online)
DOI: 10.33633/jpeb.v11i1.12461

Jurnal Penelitian Ekonomi dan Bisnis (JPEB) Vol. 11, No. 1, 2026, pp: 1 - 12
DOI:10.33633/ jpeb.v11i1.12461

## INTRODUCTION

The global Islamic financial market is showing a strong growth trend, reflected in the sustained increase in the value of Islamic financial assets. According to Bank Indonesia, total global Islamic financial assets are growing at a compound annual growth rate of approximately 9 percent. These assets increased from approximately USD 3.3 trillion in 2020–2021 to USD 3.96 trillion in 2021–2022, and are expected to continue growing to nearly USD 5.94 trillion in 2025–2026 (Hikmah et al., 2025).

ASEAN is among the fastest-growing economic regions and features a rapidly expanding sharia stock market, particularly in Indonesia, Malaysia, Thailand, and Singapore. Its stability and potential for profit are appealing to investors, though it remains subject to both national and regional macroeconomic influences. Sustained economic growth has propelled Singapore into the ranks of advanced industrial nations, while Indonesia, Malaysia, and Thailand have more than tripled their per capita income. The Philippines is also beginning to follow this trend, showcasing increasingly competitive economic growth (Fitriyanto et al., 2021).

The swift growth of the sharia stock market in ASEAN is evident in the trend of returns that varies each year. To offer a more detailed perspective, the following data illustrates the yearly progression of sharia stock returns.

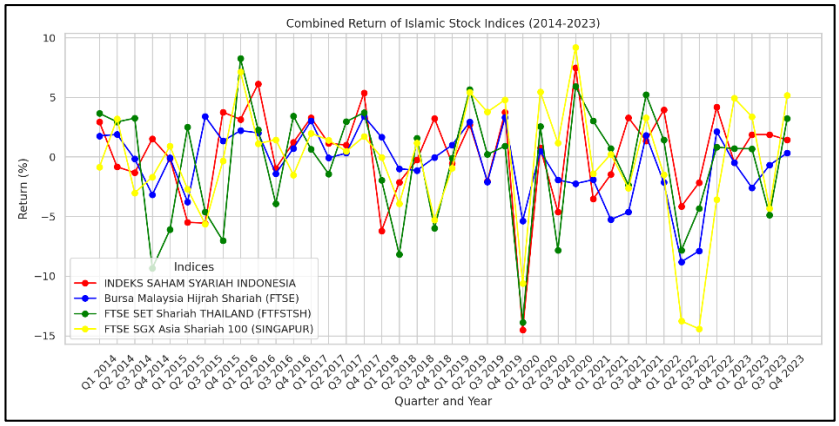


**Figure 1.** Development of ASEAN Regional Sharia Stock Returns
Source: Investing.com (Data processed by researchers, 2025)

The graph illustrates the fluctuations in Islamic stock index returns across Indonesia, Malaysia, Thailand, and Singapore from 2014 to 2023. The period from 2014 to 2019 exhibited relatively stable conditions before experiencing a sharp decline in early 2020 due to the COVID-19 pandemic, followed by a significant recovery in 2021. While volatility has persisted through 2023, it has been more controlled compared to the initial phase of the pandemic. Among these indices, the Indonesian Islamic Stock Index and the FTSE SET Shariah Thailand displayed the highest levels of volatility, whereas the Bursa Malaysia Hijrah Shariah demonstrated greater stability. The FTSE SGX Asia Shariah 100 experienced varied fluctuations, including sharp spikes during certain periods. Extreme shifts in returns have been influenced by global factors such as economic crises, monetary policies, and political conditions. Nevertheless, the Islamic stock market in ASEAN still presents growth potential, highlighting the importance for investors to consider macroeconomic risks and trends before making investment decisions.

The performance of the stock market is influenced by various macroeconomic variables, such as economic expansion, inflation rates, borrowing costs, and currency exchange rates (G. Lin et al., 2022). Furthermore, a company's financial performance, profit-sharing strategies, and business opportunities play significant roles (Liyanapathirana & Ranasinghe, 2020). Political factors, regulatory conditions, and overall stability also affect investor sentiment (Adjei & Adjei, 2017). On a global scale, commodity prices, economic crises, and international trade dynamics can either exacerbate or enhance market conditions (Vithessonthi &

Kumarasinghe, 2016). The interplay of these factors contributes to the market's volatility, necessitating that investors carefully assess risks and trends before making decisions.

This study aims to further investigate the relationship between macroeconomic variables specifically inflation, GDP, and foreign exchange reserves and sharia stock returns in the ASEAN region. An increase in inflation can lead to higher sharia stock returns due to rising company revenues and profits. Furthermore, stocks often serve as a hedge against inflation, maintaining investor interest. However, the impact of inflation on stock returns largely depends on the price competitiveness and operational efficiency of the companies in question.

Supporting this perspective, Choudhry (2001) research indicates that stock returns in countries experiencing high inflation, such as Argentina, Chile, Mexico, and Venezuela, tend to align with inflation trends, functioning as a buffer against its adverse effects. Conversely, inflation can also negatively impact stock returns by increasing operating costs, weakening purchasing power, and elevating interest rates. As borrowing costs rise, investment tends to decline, leading investors to seek safer assets, which ultimately drives stock prices down. This notion is further reinforced by the findings of Sathyanarayana & Gargesa (2018), which reveals that inflation has a significant negative effect on stock returns across benchmark indices in countries such as Australia, Belgium, Canada, Chile, China, France, and Ireland.

Rising Gross Domestic Product (GDP) signifies robust economic growth, which in turn boosts corporate revenues and profits. This favorable condition attracts investor interest, heightens demand for stocks, and ultimately enhances stock returns. In the study by Prasetyo & Hariyani (2022), an increase in GDP significantly positively impacts the returns of the Jakarta Islamic Index. Conversely, the research conducted by Hastuti et al (2023) indicates that GDP has a negative effect on manufacturing stock returns in Indonesia. Elevated GDP levels can suppress stock returns when accompanied by rising inflation and interest rates, which can increase business costs and prompt price corrections due to overvaluation.

Significant foreign exchange reserves are indicative of economic stability and instill investor confidence, which in turn bolsters the value of the currency and facilitates a more flexible monetary policy. This environment attracts investment, enhances capital flows, and supports corporate performance, ultimately leading to positive stock returns. Research by Tanzil et al (2020) illustrates that foreign currency assets positively and significantly influence Sharia stock returns across various Asian countries. However, contrasting findings by Laila et al (2023) indicate that ownership of foreign exchange hurts the yields of Islamic stocks in Indonesia. This disparity arises because excessive accumulation of foreign exchange may signify overreliance on intervention in the foreign exchange market, a tightening of monetary policy, and decreased liquidity in the real sector. If the increase in reserves is driven by factors such as import restrictions or capital outflows, it could hinder economic growth and subsequently suppress stock returns.

Although numerous studies have examined the influence of macroeconomic variables on stock returns, the empirical evidence still reveals significant gaps, particularly for Islamic stocks in the ASEAN region. Previous studies have shown varying, even contradictory, directions and significance of these influences, and generally fail to clearly distinguish between short-term and long-term impacts. Furthermore, the rapid growth of the ASEAN Islamic stock market has coincided with increasing global economic volatility, increasing the uncertainty of market responses to macroeconomic changes. This situation underscores the urgency of conducting research capable of explaining this dynamic relationship comprehensively and regionally. Therefore, this study aims to fill this gap using the ARDL Panel approach and current data, in order to provide a more accurate and relevant understanding for the development of Islamic capital market theory, investment strategies, and policies.

## METHOD

This study utilizes a causal research design and a quantitative methodology. Causal research is aimed at investigating the impact of one variable on another, examining the relationship between independent and dependent variables, typically through experiments or analyses of historical data (Cox, 1992). This approach was chosen to explore the dynamic relationship between macroeconomic factors and both the short- and long-term returns on Islamic stocks in Indonesia, Malaysia, Thailand, and Singapore.

This investigation utilized secondary data from official sources. Macroeconomic data, including foreign exchange reserves (in billion USD), GDP growth rate (%), and inflation rate (%), were sourced from the Indonesian Economic and Financial Statistics published by Bank Indonesia. Data on sharia stock returns (%) was obtained from Investing.com. The sharia stock indices selected to represent each country are as follows: 1) Indonesia: Indonesia Sharia Stock Index (ISSI); 2) Malaysia: Bursa Malaysia Hijrah Shariah Index; 3) Thailand: FTSE SET Shariah Thailand; 4) Singapore: FTSE SGX Asia Shariah 100 Index. The study spans from the first quarter of 2014 to the fourth quarter of 2023.

The data analysis technique utilized is the Panel Autoregressive Distributed Lag (ARDL) model. This approach was chosen because it can manage variables that are I(0), I(1), or a mix of both without needing to differentiate first-level stationary data (Olayungbo, 2021).
The following steps are involved in data analysis:

a. Data Stationarity Test
   To ensure that there are no unit roots in the variables included in the model, a stationarity test is conducted. The Phillips-Perron (PP) and Augmented Dickey-Fuller (ADF) tests are employed to assess whether the data is stationary at the level or first difference level (Gomez-Biscarri & Hualde, 2015).
b. Johansen Cointegration Test
   Cointegration tests are carried out to determine the sustained correlation between macroeconomic factors and Islamic stock returns (Zhou, 2000).
c. Calculating the Ideal Lag
   The ideal lag is identified by examining the maximum number of asterisks based on the FPE, AIC, SC, and HQ criteria (Khim & Liew, 2004).
d. Selection of ARDL Model
   To establish the best combination of lags, the Akaike Information Criterion (AIC) is utilized to identify the most suitable ARDL model (Cavanaugh & Neath, 2019).
e. ARDL Model Estimation
   The selected ARDL model is assessed to evaluate both short- and long-term parameters, interpreting the effects of macroeconomic factors on the returns of sharia-compliant stocks in the three countries.
f. Test of Granger Causality
   A Granger Causality test is employed to explore the predictive relationship between macroeconomic factors and sharia stock returns, determining whether one may forecast the other (Chopra et al., 2018).
g. Interpretation and Discussion of Results
   To understand the dynamic relationship patterns between macroeconomic variables and sharia stock returns, both in the short and long term, the estimation results are evaluated. The findings are then compared with those of previous studies.

EViews software version 13, capable of estimating the ARDL panel model and conducting the necessary diagnostic tests for this analysis, was utilized to analyze the da.

## RESULT AND DISCUSSION

### Results

### Descriptive Statistics

The descriptive statistics table that follows includes the mean, standard deviation, minimum, and maximum values for each variable, offering a summary of the study data.

**Table 1.** Descriptive Statistical Results

| | Stock Return | Inflation Rate | GDP Growth Rate | Foreign Exchange Reserves |
|---|---|---|---|---|
| Mean | -0.301438 | 2.099625 | 3.256188 | 183653.2 |
| Maximum | 9.2 | 8.36 | 17.9 | 417904.4 |
| Minimum | -14.52 | -2.7 | -16.9 | 93340.74 |
| Std. Dev. | 4.286313 | 2.210523 | 3.942312 | 81377.58 |

Source: Eviews, 2025

The characteristics of the study data are presented in the descriptive statistics table. During the observation period, the average stock return in the ASEAN Region was recorded at -0.30%, accompanied by significant fluctuations, as indicated by a standard deviation of 4.29%. The highest stock return achieved was 9.2%, while the lowest dipped to -14.52%.

The average inflation rate stood at 2.10%, with a variation of 2.21%. The maximum recorded inflation rate was 8.36%, whereas the minimum fell to -2.7%. The GDP growth rate averaged 3.26%, with a standard deviation of 3.94%. The highest growth rate observed was 17.9%, while the lowest reached -16.9%.

In terms of foreign exchange reserves, the average was 183,653.2 billion USD, with a maximum value of 417,904.4 billion USD and a minimum of 93,340.74 billion USD. The variation in foreign exchange reserves was substantial, as reflected by a standard deviation of 81,377.58.

**Stationarity Test**

The results of the stationarity test, which assesses whether the data contains a unit root or is stationary either at the current level or after differentiation, are as follows.

**Tabel 2.** Stationary Test Results

| Variabel | ADF Level 1(0) | PP Level 1(1) | ADF 1St Difference 1(1) | PP 1St Difference 1(1) | Keputusan |
|---|---|---|---|---|---|
| Sharia Stock Return | 0.0000 | 0.0000 | - | - | Stationary level 1(0) |
| Inflation Rate | 0.1893 | 0.1105 | 0.0000 | 0.0000 | Stationer level 1St Difference 1(1) |
| GDP Growth Rate | 0.0061 | 0.0000 | - | - | Stationary level 1(0) |
| Foreign Exchange Reserves | 0.1515 | 0.4666 | 0.0000 | 0.0000 | Stationer level 1St Difference 1(1) |

Source: Eviews, 2025

The results of the stationarity test indicate that both sharia stock returns and GDP growth rates are stationary at level 1(0), as evidenced by ADF and PP probability values falling below 0.05. In contrast, the inflation rate and foreign exchange reserves are not stationary at level 1(0); however, they become stationary after first differencing at 1(1), demonstrated by ADF and PP probability values also below 0.05 after differentiation.

**Cointegration Test**

The Johansen cointegration test, used to ascertain if a long-term relationship exists between the variables in the model, produced the following results.

**Table 3.** Johansen Cointegration Test Results

| | t-Statistic | Prob. |
|---|---|---|
| ADF | -4.8514 | 0.0000 |
| Residual variance | 32.23482 | |
| HAC variance | 10.4077 | |

Source: Eviews, 2025

The ADF statistic calculated using the Johansen cointegration test is -4.8514, accompanied by a probability of 0.0000, which is lower than 0.05. This indicates that a cointegration relationship or long-term equilibrium exists between the variables, as the residuals of the model are stable.

**Determining Optimum Lag**

The outcomes of identifying the ideal lag, which is used to calculate the ideal number of lags in the model based on information criteria, are as follows.

**Table 4.** Optimum Lag Test Results

| Lag | LogL | LR | FPE | AIC | SC | HQ |
|---|---|---|---|---|---|---|
| 0 | -2627.98 | NA | 8.52E+12 | 41.12468 | 41.21381 | 41.16089 |
| 1 | -2221.599 | 781.0127 | 1.91E+10 | 35.02499 | 35.47062* | 35.20605 |
| 2 | -2189.39 | 59.88788 | 1.48E+10 | 34.77173 | 35.57386 | 35.09764* |
| 3 | -2179.18 | 18.34721 | 1.63E+10 | 34.86219 | 36.02082 | 35.33295 |
| 4 | -2157.424 | 37.73317 | 1.49E+10 | 34.77225 | 36.28739 | 35.38786 |
| 5 | -2119.853 | 62.81431 | 1.07E+10 | 34.4352 | 36.30684 | 35.19566 |
| 6 | -2090.549 | 47.16066 | 8.78E+09 | 34.22733 | 36.45548 | 35.13263 |
| 7 | -2079.509 | 17.07669 | 9.60E+09 | 34.30483 | 36.88949 | 35.35499 |
| 8 | -2056.229 | 34.55622* | 8.71e+09* | 34.19108* | 37.13224 | 35.38609 |

Source: Eviews, 2025

The findings from the optimal lag determination indicate that lag 8 is the most suitable based on the LR, FPE, and AIC criteria, identified by the lowest value for each measure. Consequently, lag 8 is chosen as the preferred lag for additional analysis.

**Model Selection Summary**

The subsequent information outlines the outcomes of identifying the optimal model for ARDL analysis by focusing on the criteria of the lowest AIC.

**Table 5.** Model Selection Results

| Model | LogL | AIC* | BIC | HQ | Specification |
|---|---|---|---|---|---|
| 24 | -145.952 | 4.07738 | 6.639751 | 5.118484 | ARDL(3, 8, 8, 8) |
| 23 | -234.064 | 5.266622 | 7.561615 | 6.199089 | ARDL(3, 7, 7, 7) |
| 16 | -226.533 | 5.273954 | 7.747199 | 6.278846 | ARDL(2, 8, 8, 8) |
| 8 | -245.837 | 5.513077 | 7.897196 | 6.481757 | ARDL(1, 8, 8, 8) |
| 15 | -261.178 | 5.627777 | 7.833644 | 6.524032 | ARDL(2, 7, 7, 7) |
| 1 | -344.58 | 5.743438 | 6.255912 | 5.951658 | ARDL(1, 1, 1, 1) |

| Model | LogL | AIC* | BIC | HQ | Specification |
|---|---|---|---|---|---|
| 17 | -338.168 | 5.768255 | 6.458981 | 6.048901 | ARDL(3, 1, 1, 1) |
| 22 | -278.667 | 5.776051 | 7.803666 | 6.599881 | ARDL(3, 6, 6, 6) |
| 9 | -343.07 | 5.782345 | 6.383945 | 6.026778 | ARDL(2, 1, 1, 1) |
| 19 | -315.083 | 5.782552 | 7.008034 | 6.280472 | ARDL(3, 3, 3, 3) |
| 2 | -335.631 | 5.791106 | 6.570958 | 6.107963 | ARDL(1, 2, 2, 2) |
| 11 | -319.779 | 5.793428 | 6.929784 | 6.255135 | ARDL(2, 3, 3, 3) |
| 18 | -328.028 | 5.797305 | 6.755409 | 6.186587 | ARDL(3, 2, 2, 2) |
| 14 | -284.09 | 5.798282 | 7.736772 | 6.585900 | ARDL(2, 6, 6, 6) |
| 10 | -332.881 | 5.810635 | 6.679613 | 6.163705 | ARDL(2, 2, 2, 2) |
| 3 | -326.895 | 5.842116 | 6.889346 | 6.267611 | ARDL(1, 3, 3, 3) |
| 7 | -280.09 | 5.860779 | 7.97752 | 6.720821 | ARDL(1, 7, 7, 7) |
| 21 | -298.981 | 5.905957 | 7.666195 | 6.621151 | ARDL(3, 5, 5, 5) |
| 20 | -311.814 | 5.918966 | 7.411825 | 6.525522 | ARDL(3, 4, 4, 4) |
| 6 | -296.28 | 5.926247 | 7.77561 | 6.677652 | ARDL(1, 6, 6, 6) |
| 12 | -317.017 | 5.93776 | 7.341494 | 6.508105 | ARDL(2, 4, 4, 4) |
| 13 | -306.319 | 5.958103 | 7.629215 | 6.637084 | ARDL(2, 5, 5, 5) |
| 4 | -324.071 | 5.985483 | 7.300091 | 6.519615 | ARDL(1, 4, 4, 4) |
| 5 | -313.302 | 6.00472 | 7.586706 | 6.647489 | ARDL(1, 5, 5, 5) |

Source: Eviews, 2025

The evaluation of the chosen model indicates that the ARDL(3, 8, 8, 8) model has the minimum AIC value (4.07738), making it the preferred model for subsequent analysis.

**ARDL Panel Estimation**

The results of the ARDL Panel estimation (3, 8, 8, 8) presented below demonstrate the long-term relationship between the variables.

**Table 6.** Long-Term ARDL Panel Estimation Results

| Variable | Coefficient | Std. Error | t-Statistic | Prob.* |
|---|---|---|---|---|
| **Long Run Equation** | | | | |
| Inflation Rate | -0.683845 | 0.014616 | -46.7868 | 0.0000 |
| GDP Growth Rate | 0.524958 | 0.003595 | 146.0069 | 0.0000 |
| Foreign Exchange Reserves | -1.34E-05 | 1.51E-06 | -8.90214 | 0.0000 |

Source: Eviews, 2025

The long-term ARDL Panel estimation results demonstrate that Islamic stock returns are adversely affected by inflation and foreign exchange reserves, while they experience a positive impact from the GDP growth rate. All variables are statistically significant at the 1% level ($p < 0.01$).

The short-term dynamics characterizing the relationship between these variables are elucidated by the findings from the ARDL Panel estimation, which are as follows:

**Table 7.** ARDL Panel Short Term Results

| Variable | Coefficient | Std. Error | t-Statistic | Prob.* |
|---|---|---|---|---|
| | **Short Run Equation** | | | |
| COINTEQ01 | -3.448954 | 1.786317 | -1.930763 | 0.0598 |
| D(Stock Return (-1)) | 1.560027 | 1.326513 | 1.176036 | 0.2458 |
| D(Stock Return (-2)) | 0.786867 | 0.527466 | 1.491788 | 0.1427 |
| D(Inflation Rate) | 7.06221 | 4.794494 | 1.472984 | 0.1477 |
| D(Inflation Rate(-1)) | 0.509812 | 0.782861 | 0.651217 | 0.5182 |
| D(Inflation Rate(-2)) | -0.607932 | 0.810277 | -0.750277 | 0.457 |
| D(Inflation Rate(-3)) | 0.459038 | 2.459982 | 0.186602 | 0.8528 |
| D(Inflation Rate(-4)) | 5.890784 | 5.016586 | 1.174261 | 0.2465 |
| D(Inflation Rate(-5)) | -2.04598 | 2.225089 | -0.919505 | 0.3627 |
| D(Inflation Rate(-6)) | 0.924104 | 0.977284 | 0.945584 | 0.3494 |
| D(Inflation Rate(-7)) | 1.590626 | 1.427325 | 1.114411 | 0.271 |
| D(GDP Growth Rate) | -1.989394 | 0.707125 | -2.813355 | 0.0072 |
| D(GDP Growth Rate(-1)) | -0.361567 | 1.129561 | -0.320095 | 0.7504 |
| D(GDP Growth Rate(-2)) | 0.233128 | 1.205678 | 0.193358 | 0.8475 |
| D(GDP Growth Rate(-3)) | -0.209779 | 0.634949 | -0.330388 | 0.7426 |
| D(GDP Growth Rate(-4)) | -1.217219 | 1.262307 | -0.964282 | 0.3401 |
| D(GDP Growth Rate(-5)) | 0.183869 | 1.504511 | 0.122212 | 0.9033 |
| D(GDP Growth Rate(-6)) | 0.930432 | 1.539 | 0.604569 | 0.5485 |
| D(GDP Growth Rate(-7)) | 0.173298 | 0.938375 | 0.184679 | 0.8543 |
| D(Foreign Exchange Reserves) | 0.000552 | 0.000217 | 2.544641 | 0.0144 |
| D(Foreign Exchange Reserves(-1)) | 0.00089 | 0.00058 | 1.535197 | 0.1317 |
| D(Foreign Exchange Reserves(-2)) | 0.000476 | 0.000589 | 0.807285 | 0.4237 |
| D(Foreign Exchange Reserves(-3)) | 0.000509 | 0.00042 | 1.213614 | 0.2312 |
| D(Foreign Exchange Reserves(-4)) | 8.33E-05 | 0.000168 | 0.494661 | 0.6232 |
| D(Foreign Exchange Reserves(-5)) | -6.65E-05 | 0.000108 | -0.618564 | 0.5393 |
| D(Foreign Exchange Reserves(-6)) | -3.72E-05 | 0.000171 | -0.217423 | 0.8289 |
| D(Foreign Exchange Reserves(-7)) | 2.86E-05 | 0.000296 | 0.096803 | 0.9233 |
| C | 3.228101 | 2.725634 | 1.184349 | 0.2425 |

Source: Eviews, 2025

The error correction term variable (COINTEQ01) is significant at the 10% level based on the short-term ARDL Panel estimation results, indicating a shift towards long-term equilibrium. In the short term, stock returns are notably influenced by the GDP growth rate and foreign exchange reserves, while inflation and lagged stock returns appear to have no significant impact.

**Granger Causality Test**

The results of the Granger Causality Test, which analyzed the causal link between the variables being studied, are presented below.

**Table 8.** Granger Causality Test Findings

| Null Hypothesis: | Obs | F-Statistic | Prob. |
|---|---|---|---|
| Inflation Rate Does Not Granger Cause Stock Return | 128 | 2.24793 | 0.029 |
| Stock Return Does Not Granger Cause Inflation Rate | | 2.04162 | 0.0478 |
| GDP Growth Rate Does Not Granger Cause Stock Return | 128 | 2.08549 | 0.043 |
| Stock Return Does Not Granger Cause GDP Growth Rate | | 6.96564 | 2.00E-07 |
| Foreign Exchange Reserves Does Not Granger Cause Stock Return | 128 | 2.68539 | 0.0098 |
| Stock Return Does Not Granger Cause Foreign Exchange Reserves | | 3.60441 | 0.0009 |
| GDP Growth Rate Does Not Granger Cause Inflation Rate | 128 | 3.79683 | 0.0006 |
| Inflation Rate Does Not Granger Cause GDP Growth Rate | | 1.00379 | 0.4374 |
| Foreign Exchange Reserves Does Not Granger Cause Inflation Rate | 128 | 1.26789 | 0.2675 |
| Inflation Rate Does Not Granger Cause Foreign Exchange Reserves | | 1.34123 | 0.2307 |
| Foreign Exchange Reserves Does Not Granger Cause GDP Growth Rate | 128 | 2.43567 | 0.0182 |
| GDP Growth Rate Does Not Granger Cause Foreign Exchange Reserves | | 2.88065 | 0.0059 |

Source: Eviews, 2025

The results of the Granger Causality Test indicate a causal relationship among several of the variables analyzed. Specifically, the inflation rate has a causal relationship with stock returns (p = 0.029), and this relationship is reciprocal (p = 0.0478). Additionally, the GDP growth rate impacts stock returns (p = 0.043), exhibiting a significant reciprocal causal relationship (p = 2.00E-07). Moreover, foreign exchange reserves significantly affect stock returns (p = 0.0098) and are also influenced by them (p = 0.0009).

In terms of the relationship between GDP growth and inflation, the GDP growth rate is statistically proven to influence the inflation rate (p = 0.0006); however, the inflation rate does not significantly impact GDP growth (p = 0.4374). Similarly, no causal relationship was identified between foreign exchange reserves and the inflation rate in either direction (p = 0.2675 and p = 0.2307). Notably, foreign exchange reserves do have a significant effect on the GDP growth rate (p = 0.0182), and this is reciprocated, as the GDP growth rate also impacts foreign exchange reserves (p = 0.0059).

**Analysis**

The preliminary findings of this study suggest that long-term inflation has a significant negative impact on Islamic stock returns. Specifically, rising inflation correlates with a decrease in Islamic stock returns within the ASEAN region. This phenomenon indicates that increased inflation undermines investor purchasing power and heightens market uncertainty, ultimately suppressing the performance of Sharia-compliant stocks. This conclusion aligns with the research conducted by Sathyanarayana & Gargesa (2018), which identified a notable and adverse effect of inflation on stock returns across major indices in Australia, Belgium, Canada, Chile, China, France, and Ireland.

Inflation can negatively influence stock returns by increasing operating costs, diminishing purchasing power, and pushing up interest rates. Consequently, this leads to higher borrowing costs, a reduction in investments, and a tendency for investors to reallocate funds toward safer assets, thereby weakening stock prices. Stock returns are likely to decline when high inflation is coupled with tight monetary policies or economic uncertainty.

In the short term, however, inflation does not appear to significantly impact Islamic stock returns. These findings corroborate previous research by S. Lin (2009) and Sre & Naik (2020), which also suggested that short-term inflation rates have little effect on stock returns. The limited short-term impact of inflation on Sharia-compliant stock returns can be attributed to various factors. Companies often require time to adjust the prices of

goods or production costs, meaning the effects on profits and stock values are not immediately observable. Moreover, if inflation is anticipated by the market, investors tend not to overreact, which helps maintain stability in stock returns. Additionally, monetary authorities frequently implement policies such as interest rate adjustments to mitigate market volatility before long-term effects manifest.

The second finding indicates that an increase in GDP, both in the short and long term, significantly boosts Islamic stock returns. This implies that the greater the economic growth of a country, the higher the returns on its sharia-compliant stocks. Such growth stimulates business activity and enhances investor confidence in the sharia stock market. This aligns with the research conducted by Prasetyo & Hariyani (2022), which demonstrates that GDP growth positively contributes to the stock returns of the Jakarta Islamic Index. A rise in GDP signifies a robust economy, leading to increased corporate revenues and profits. This favorable condition attracts investor interest, heightens stock demand, and ultimately results in higher stock returns. Economic growth, as reflected by GDP, plays a crucial role in elevating stock returns by fostering increased consumption, investment, and corporate profits, which, in turn, bolsters investor optimism and drives up stock prices.

The third outcome indicates that, over an extended period, foreign exchange reserves negatively affect Islamic stock returns. In other words, as foreign exchange reserves increase, Islamic stock returns in ASEAN tend to decrease. Although this effect is relatively minor in absolute terms, it suggests that a rise in foreign exchange reserves does not necessarily correlate with the movement of Islamic stock returns, particularly when influenced by external factors such as monetary policy or global instability. This finding aligns with earlier research by Laila et al (2023), which showed that the buildup of foreign exchange reserves negatively impacts Islamic stock returns in Indonesia. One possible explanation is that excessively high foreign exchange reserves indicate undue intervention in the foreign exchange market, limit the flexibility of monetary policy, and hinder the liquidity of the real economy. If the rise in foreign exchange reserves is due to import restrictions or capital flight, it could impede economic growth, diminish investor interest due to fears of declining corporate profits, which, in turn, would depress stock prices and reduce returns. Conversely, in the short term, foreign exchange reserves play a significant and positive role in boosting Islamic stock returns. This finding corroborates Yongmao (2014) conclusion that the short-term volatility of stock returns in China relies on foreign exchange holdings. The elevation of foreign exchange reserves over a brief period positively and significantly influences Islamic stock returns due to various factors. As investor confidence rises alongside perceptions of heightened economic stability, investment flows to the stock market are encouraged. An increase in foreign exchange reserves often coincides with currency appreciation, which can lower import expenses and enhance corporate competitiveness, thereby improving stock performance. Furthermore, adequate foreign exchange reserves enable monetary authorities to more effectively manage market fluctuations, fostering a more stable investment environment.

Theoretically, this study contributes to expanding Islamic finance studies by presenting empirical evidence on the differences in the short-term and long-term effects of macroeconomic variables on Islamic stock returns in the ASEAN region using the ARDL Panel approach, which is still relatively rare in regional Islamic capital market studies. Variations in the impact of inflation and foreign exchange reserves across different time horizons confirm that the transmission of macroeconomic factors to Islamic stock performance is non-linear. From a practical perspective, the findings of this study provide a basis for consideration for Islamic investors in developing portfolio strategies that adapt to macroeconomic dynamics, and serve as a reference for monetary authorities and capital market regulators in designing policies oriented towards strengthening the stability and competitiveness of Islamic stock markets in the ASEAN region.

## CONCLUSION AND RECOMMENDATION

Research indicates that, over the long term, inflation tends to have a considerable negative effect on Islamic stock returns within the ASEAN region. Increasing inflation diminishes purchasing power, heightens

uncertainty, and raises interest rates, thereby depressing stock prices. In contrast, the short-term effect is minimal because companies have yet to adjust their prices, the market has already factored in inflation, and monetary policy mitigates its impacts.

Moreover, a rise in Gross Domestic Product positively and significantly influences the returns of Islamic stocks in both short and long timeframes. An expanding economy boosts business activity, enhances corporate profits, and fosters investor confidence, leading to increased stock prices.

In the long term, a rise in foreign exchange reserves negatively affects the return on Islamic stocks, signaling that the accumulation of foreign exchange does not always correlate with stock performance when economic policies are unstable. Conversely, in the short term, an increase in reserves positively influences returns by enhancing investor confidence, stabilizing the exchange rate, and creating a more favorable investment environment.

In summary, the returns on sharia stocks in the ASEAN region are shaped by macroeconomic elements, with different impacts observed in the short and long term. Therefore, both investors and policymakers need to take into account temporal dynamics when developing effective investment strategies and economic policies.

Future research could explore various facets to deepen the analysis. First, broadening the scope to include more ASEAN countries would yield results that are more widely applicable. Second, integrating additional macroeconomic indicators, such as interest rates or exchange rates, could provide insight into other factors influencing sharia stock returns. Third, utilizing different estimation methods apart from the ARDL panel could help assess the resilience of the output. Fourth, extending the research timeframe to encompass more economic cycles would be beneficial. Finally, employing datasets with higher frequencies, such as monthly or weekly data, could allow for a more detailed understanding of market dynamics.

**REFERENCES**

Adjei, F., & Adjei, M. (2017). Political Cycles, Investor Sentiment, and Stock Market Returns. *Journal of Finance and Economics*, *5*, 1–10. https://doi.org/10.12691/JFE-5-1-1

Cavanaugh, J. E., & Neath, A. A. (2019). The Akaike information criterion: Background, derivation, properties, application, interpretation, and refinements. *WIREs Computational Statistics*, *11*(3). https://doi.org/10.1002/wics.1460

Chopra, R., Murthy, C. R., & Rangarajan, G. (2018). Statistical Tests for Detecting Granger Causality. *IEEE Transactions on Signal Processing*, 1–1. https://doi.org/10.1109/TSP.2018.2872004

Choudhry, T. (2001). Inflation and rates of return on stocks: evidence from high inflation countries. *Journal of International Financial Markets, Institutions and Money*, *11*, 75–96. https://doi.org/10.1016/S1042-4431(00)00037-8

Cox, D. (1992). Causality : some statistical aspects. *Journal of The Royal Statistical Society Series A-Statistics in Society*, *155*, 291–301. https://doi.org/10.2307/2982962

Fitriyanto, N., Ardiansyah, M., & Ghafur, M. (2021). Dinamika Hubungan Foreign Direct Investment (FDI), Makroekonomi dan Return Indeks Saham Syariah di Empat Negara Asean. *An-Nisbah: Jurnal Ekonomi Syariah*, *8*(2), 322–365.

Gomez-Biscarri, J., & Hualde, J. (2015). A residual-based ADF test for stationary cointegration in <math altimg="si65.gif" display="inline" overflow="scroll"> <mi>I</mi> <mrow> <mo>(</mo> <mn>2</mn> <mo>)</mo> </mrow> </math> settings. *Journal of Econometrics*, *184*(2), 280–294. https://doi.org/10.1016/j.jeconom.2014.08.009

Hastuti, R., Irawan, I., & Hukom, A. (2023). Pengaruh Inflasi, Nilai Tukar, Suku Bunga dan Produk Domestik Bruto terhadap Return Saham pada Perusahaan Manufaktur. *Studi Ekonomi Dan Kebijakan Publik*. https://doi.org/10.35912/sekp.v2i1.1221

Hikmah, L., Hafizhah, N. Z., & Rusgianto, S. (2025). *Islamic Banking and Economic Growth : A Case Study in Indonesia*. *8*(1), 111–123. https://doi.org/10.58824/mediasas.v8i1.307

Khim, V., & Liew, S. (2004). Which Lag Length Selection Criteria Should We Employ ? *Universiti Putra Malaysia: Economics Bulletin*, *3*(33), 1–9.

Laila, L. Z., Mauluddi, H. A., & Pakpahan, R. (2023). Pengaruh Ekonomi Makro terhadap Volatilitas Return Indeks Saham Konvensional dan Syariah. *Journal of Applied Islamic Economics and Finance*. https://doi.org/10.35313/jaief.v3i3.5160

Lin, G., Vecchio, A., Yager, E., & Liu, W. (2022). Macroeconomic Factors and Stock Market Indices. *International Journal of Business & Economics (IJBE)*. https://doi.org/10.58885/ijbe.v07i1.230.gl

Lin, S. (2009). Inflation and Real Stock Returns Revisited. *ERN: Price Level; Inflation; Deflation (Topic)*. https://doi.org/10.1111/j.1465-7295.2008.00193.x

Liyanapathirana, B., & Ranasinghe, R. (2020). *Stock Market Measures and Market Performance*. *3*. https://doi.org/10.30564/jesr.v3i2.1672

Olayungbo, D. O. (2021). Global oil price and food prices in food importing and oil exporting developing countries: A panel ARDL analysis. *Heliyon*, *7*(3), e06357. https://doi.org/10.1016/j.heliyon.2021.e06357

Prasetyo, Y. T., & Hariyani, H. F. (2022). Pengaruh Variabel Makro Ekonomi Terhadap Return Saham Pada Jakarta Islamic Index (Jii) Periode 2013 -2020. *Journal of Financial Economics & Investment*. https://doi.org/10.22219/jofei.v2i1.19441

Sathyanarayana, S., & Gargesa, S. (2018). An Analytical Study of the Effect of Inflation on Stock Market Returns. *IRA-International Journal of Management & Social Sciences (ISSN 2455-2267)*. https://doi.org/10.21013/JMSS.V13.N2.P3

Sre, N., & Naik, S. (2020). *Effects of Exchange Rate and Inflation Rate on Stock Market Returns Volatility in India.* https://doi.org/10.21203/rs.3.rs-55417/v1

Tanzil, D., Widiyanti, M., & Subardin, M. (2020). Effect of Exchange Rate, Foreign Exchange Reserves, and Consumer Price Index on the Shariah Shares Index of Asian Countries. *Accounting and Finance*. https://doi.org/10.33146/2307-9878-2020-3(89)-77-82

Vithessonthi, C., & Kumarasinghe, S. (2016). Financial development, international trade integration, and stock market integration: Evidence from Asia. *Journal of Multinational Financial Management*, *35*, 79–92. https://doi.org/10.1016/J.MULFIN.2016.03.001

Yongmao, W. (2014). Estimation on Dynamic Correlations Among Foreign Reserve Growing, Liquidity Shock and Stock Market Fluctuation in China. *2014 Ninth International Conference on Broadband and Wireless Computing, Communication and Applications*, 274–276. https://doi.org/10.1109/BWCCA.2014.132

Zhou, S. (2000). Testing structural hypotheses on cointegration relations with small samples. *Economic Inquiry*, *38*(4), 629–640. https://doi.org/10.1111/j.1465-7295.2000.tb00041.x