

Shariah Banking Stock Prices: Expected Return, Risk Level and Macroeconomics Conditions In Indonesia

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ABSTRACT

The present study evaluates how Expected Return (ERT), Risk Level (RLV), alongside Macroeconomic Conditions (MCN) impact the Shariah Banking Stock Price (SBS). The scope focuses specifically on Islamic banking institutions actively listed on the Indonesia Stock Exchange (IDX) between October 2021 and August 2024. All shariah-compliant banks featured on the IDX constituted the target population. To select the final subjects, a purposive sampling approach was applied. The core inclusion criteria required these firms to maintain a consistent listing status and provide uninterrupted data throughout the designated timeframe. Consequently, four specific entities met these parameters: BRIS, BTPS, BANK, and PNBS. Given the 35-month timeline, the empirical testing processed a final dataset comprising 140 distinct observations. Analytical procedures relied on SPSS software to conduct descriptive statistics and classical assumption evaluations—specifically assessing normality, multicollinearity, heteroscedasticity, and autocorrelation. Following this, hypothesis verification was carried out via simultaneous (F-statistic) and partial (t-statistic) assessments, complemented by the coefficient of determination (R^2). Empirical findings reveal that, collectively, the three independent components (ERT, RLV, and MCN) significantly drive SBS movements, evidenced by an F-value of 64.321 at a 0.000 significance threshold. When evaluated individually, only Macroeconomic Conditions (MCN) demonstrated a distinct, adverse effect on the stock prices (t-value = -8.290, $p = 0.000$). Conversely, neither Expected Return nor Risk Level showed any statistically meaningful impact on the dependent variable. The generated Adjusted R^2 stood at 0.741. This metric implies that the formulated predictors account for exactly 74.1% of the fluctuations observed in the shariah stock prices, while unidentified external factors outside this framework are responsible for the remaining 25.9% variance. Moving forward, subsequent investigations could benefit from extending the observational timeframe. Scholars are encouraged to incorporate alternative macroeconomic indicators—such as fluctuating interest rates or inflation metrics—and potentially broaden the sampling frame to encompass conventional banking or entirely different industries to yield more comprehensive insights.

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1. INTRODUCTION

Over the past ten years, Indonesia's Islamic capital market has expanded considerably, driven by a growing investor appetite for shariah-compliant financial instruments. This progress is evident in the continuous rise of Islamic stock capitalization. Notably, the Indonesian Shariah Stock Index (ISSI) grew from IDR 3,344.93 trillion in 2020 to reach IDR 6,825.31 trillion by the close of 2024. As a core component of this ecosystem, Islamic banks play a strategic part in maintaining the stability of the shariah financial sector while remaining highly attractive to capital market investors [1], [2], [3]. Even so, shariah banking equities have experienced notable price fluctuations recently, highlighting the sector's vulnerability to various internal and external pressures [2], [3].

Such volatility in Islamic bank stock prices is deeply tied to multiple interacting elements that shape market pricing mechanisms. These price shifts often stem from investor anticipations regarding expected returns, the inherent risk levels of the investments, and broader macroeconomic conditions—including exchange rate stability, inflation, and monetary policies. The situation is further complicated by the dual framework within which these institutions operate: strict adherence to Islamic principles alongside the necessity to remain competitive within the national financial landscape. Reports from the Financial Services Authority (OJK) indicate that Islamic stock indices, such as the Jakarta Islamic Index (JII) and Indonesian Sharia Stock Index (ISSI), have shown erratic movements with occasional downward trends, suggesting that underlying fundamental drivers heavily dictate their market performance in Indonesia [1], [2].

Prior literature emphasizes that expected returns, commonly estimated using the Capital Asset Pricing Model (CAPM), represent one of the most important considerations in investors' portfolio allocation decisions [4], [5], [6], [7]. CAPM theory explains that securities with higher systematic risk should offer higher expected returns as compensation for investors, thereby influencing stock valuation in efficient capital markets [4], [8]. Empirical evidence also supports the relevance of CAPM in explaining stock price movements across various sectors [9], [10], [11]. Theoretically, a higher anticipated return leads to a greater likelihood of stock price appreciation. However, recent work by Abdillah [12] found no statistically significant relationship between expected return and Islamic banking stock prices during the 2021–2024 period, while interest rates and the Debt-to-Equity Ratio (DER) significantly affected stock prices. This inconsistency indicates an important research gap that deserves further investigation, particularly considering the unique characteristics of the Islamic capital market compared with conventional financial markets. Furthermore, Kresnaputra and Kafabih [13] revealed that the stock price volatility of Bank Syariah Indonesia was influenced more by investor irrationality than by fundamental financial indicators, implying that investors do not always respond rationally to available market information.

From a macroeconomic perspective, fluctuations in the Indonesian Rupiah exchange rate against the US Dollar constitute another important determinant of Islamic banking stock prices. Exchange rate depreciation tends to increase operational costs and financial exposure for firms with foreign currency transactions, thereby reducing profitability and exerting downward pressure on stock valuations [14], [15], [16], [17], [18], [19], [20]. Previous studies

consistently report that macroeconomic variables—including exchange rates, inflation, and interest rates—significantly influence stock price dynamics in both conventional and Islamic capital markets [14], [15], [16], [17], [18], [19], [20]. Moreover, Goh, Henry, and Albert [21] demonstrated that stochastic macroeconomic environments reduce the predictive capability of Islamic stock pricing models, indicating that macroeconomic uncertainty should be considered when evaluating stock performance.

Besides expected return and macroeconomic conditions, investment risk remains a central consideration in investment decision-making. According to Modern Portfolio Theory, investors are inherently risk-averse and seek an optimal balance between expected return and investment risk [22]. Higher stock price volatility generally reflects greater uncertainty, leading investors to require higher expected returns as compensation [23]. Several empirical studies have further confirmed that systematic risk significantly influences stock returns and stock prices within the Indonesian capital market [24], [25].

Motivated by these theoretical and empirical considerations, the current study investigates the influence of Expected Return (ERT), Risk Level (RLV), and Macroeconomic Conditions (MCN), represented by the Rupiah exchange rate, on Shariah Banking Stock Prices (SBS) in Indonesia during the period from October 2021 to August 2024. By integrating capital market theory with recent evidence from the Islamic finance literature, this study is expected to enrich the growing body of knowledge concerning the determinants of Islamic banking stock prices in emerging markets. Furthermore, the findings are expected to provide practical implications for investors in developing more informed investment strategies and for policymakers in strengthening the resilience and competitiveness of Indonesia's Islamic capital market [1], [2], [12], [13].

2. LITERATURE REVIEW

This section outlines the theoretical underpinnings and empirical evidence that form the basis for the relationships investigated in the present study. The discussion commences by elucidating several foundational financial theories, including Signaling Theory alongside the Efficient Market Hypothesis, followed by a comprehensive examination of Modern Portfolio Theory and the Capital Asset Pricing Model. Subsequently, the Arbitrage Pricing Theory is elaborated upon, with particular attention to its implications for understanding how macroeconomic determinants influence asset prices. The review then proceeds to synthesize prior empirical investigations concerning the associations between expected returns and equity valuations, risk levels and stock price behavior, as well as macroeconomic conditions and shariah banking stock performance. The section culminates by presenting testable propositions derived from the synthesized theoretical and empirical literature, thereby establishing a coherent framework for the subsequent empirical analysis.

2.1 *Signaling Theory and Efficient Market Hypothesis*

The theoretical underpinnings of this investigation draw substantially from signaling theory, which was originally articulated by Spence [26]. This conceptual framework explains how organizations convey critical information to external stakeholders, particularly investors, through observable corporate actions and voluntary public disclosures. Within capital market contexts, financial statements, dividend announcements, and strategic policy decisions function as signals that substantially influence investor perceptions and subsequent trading behavior. Corporations demonstrating robust financial performance typically transmit positive signals to the marketplace, thereby stimulating demand and elevating equity valuations. Conversely, negative signals such as declining profitability or

escalating risk profiles tend to dampen investor sentiment and exert downward pressure on stock prices [13].

Complementing signaling theory, the Efficient Market Hypothesis (EMH) was formulated by Fama [8] and posits that asset prices instantaneously incorporate all available information at any given moment. Under this paradigm, no market participant can consistently achieve abnormal returns because price adjustments occur rapidly in response to new information releases. The EMH distinguishes among three forms of informational efficiency: the weak form, where historical price data are already reflected in current valuations; the semi-strong form, where all publicly available information is immediately priced; and the strong form, where even private information is instantly incorporated. Within Islamic capital markets, informational efficiency may be moderated by shariah-compliant investment restrictions that limit certain asset classes and speculative activities [11]. Consequently, price fluctuations in shariah banking stocks can be interpreted as market responses to evolving information regarding anticipated returns, investment risk profiles, and prevailing macroeconomic fundamentals. The interplay between signaling mechanisms and market efficiency provides a comprehensive lens through which the behavior of Islamic banking equities can be systematically examined, particularly in response to changes in expected returns and macroeconomic conditions [12].

2.2 Modern Portfolio Theory and Capital Asset Pricing Model

Modern Portfolio Theory was developed by Markowitz [22] to explain how rational investors construct portfolios by balancing expected return and investment risk. Within this framework, investors seek either to obtain the highest possible expected return at a predetermined level of risk or to achieve a targeted return with the lowest possible

risk exposure. A central principle of MPT is diversification, through which investors can reduce firm-specific or unsystematic risk by combining assets whose returns do not move perfectly together. As a result, the overall efficiency of the portfolio can be improved.

When applied to Islamic banking stocks, MPT suggests that investors must carefully evaluate the expected benefits of an investment relative to the risks associated with holding shariah-compliant equities. Investors are assumed to behave rationally and will therefore be willing to bear a higher degree of risk only when the additional exposure is accompanied by a sufficiently greater expected return [24]. Accordingly, the risk–return trade-off becomes an important consideration in selecting and allocating Islamic banking securities within an investment portfolio.

Building on the principles of MPT, Sharpe [4], Lintner [5], and Mossin [6] independently formulated the Capital Asset Pricing Model. The CAPM proposes that the expected return of a security is primarily determined by its exposure to systematic market risk, which is represented by beta (β). The relationship can be expressed as follows:

$$E(R_i) = R_f + \beta_i [E(R_m) - R_f]$$

In this equation, $E(R_i)$ refers to the expected return of asset i , R_f represents the risk-free rate, β_i measures the responsiveness of the asset's return to changes in the overall market, and $E(R_m)$ denotes the expected return of the market portfolio. The difference between the expected market return and the risk-free rate represents the market risk premium.

The CAPM is relevant to the present study because it provides a structured method for estimating the expected return of shariah-compliant stocks and explaining how exposure to systematic risk may affect their market prices [9]. Under this model, securities with higher beta values are expected to provide greater returns because they

expose investors to a higher level of non-diversifiable market risk.

Nevertheless, previous studies have produced inconsistent evidence regarding the effectiveness of the CAPM in Islamic and other equity markets. Dinahastuti, Badruzaman, and Wursan [9] reported that CAPM-based expected returns had a significant and positive association with the stock prices of technology companies included in the Nikkei 225 index. Their findings indicate that the risk–return relationship proposed by the CAPM may be relevant in explaining stock price movements within that sector.

In contrast, Sari and Ryandono [11] found that the CAPM was not consistently capable of predicting the relationship between risk and return among shariah-compliant stocks listed in the Jakarta Islamic Index during the period examined. Their findings suggest that the pricing of Islamic equities may not be explained solely by systematic market risk.

Similarly, Abdillah [12], who examined the determinants of Indonesian Islamic banking stock prices from 2021 to 2024, found that expected return had no statistically significant effect on stock prices. This evidence implies that investors' valuation of Islamic banking shares may be influenced more strongly by other company-specific, market-related, or macroeconomic factors.

2.3 Arbitrage Pricing Theory and Macroeconomic Determinants

Arbitrage Pricing Theory was introduced by Ross [7] as an alternative framework for explaining asset returns. Unlike the CAPM, which relies primarily on a single market-risk factor, APT assumes that returns are influenced by several systematic economic forces. The theory therefore adopts a multifactor perspective in assessing the determinants of expected asset returns.

According to APT, changes in macroeconomic conditions may alter investors' expectations, risk perceptions,

and required rates of return. Economic variables such as inflation, interest rates, foreign exchange rates, and economic growth may simultaneously affect corporate performance, investment decisions, and stock valuation. Consequently, expected returns and stock prices are viewed as the outcomes of exposure to multiple systematic factors rather than to general market movements alone. The theory suggests that arbitrage opportunities will ensure that asset prices reflect these multiple systematic influences, and the expected return of an asset can be modeled as a linear function of various macroeconomic variables. This multi-factor approach is particularly relevant to emerging markets like Indonesia, where macroeconomic volatility can significantly influence financial asset performance [15].

In the context of Islamic banking, macroeconomic conditions—particularly exchange rate movements—exert considerable influence on profitability and operational performance, which in turn affect equity valuations. Nafiah [14] incorporated exchange rates as a proxy for macroeconomic conditions in analyzing stock price determinants for LQ45-indexed banking firms, finding that currency movements exert a meaningful influence on equity valuations. Sunaryo [15] similarly demonstrated that exchange rates significantly affect stock prices through their impact on systematic risk. The transmission mechanism through which exchange rates affect Islamic banking stocks operates through multiple channels. A depreciating Rupiah increases the cost of imported inputs and foreign currency-denominated obligations, compressing profit margins and potentially impairing asset quality [21]. Currency weakness may also signal broader macroeconomic instability, eroding investor confidence and prompting capital outflows from equity markets. Conversely, exchange rate stability fosters a predictable operating environment that supports banking sector

performance and enhances investor sentiment. Fitriansyah and Darwanto [16], Wijaya and Nuryasman [17], and Astuti [18] all found that macroeconomic variables exert significant effects on Islamic stock indices and equity prices in Indonesia, thereby providing empirical support for the APT framework within the context of shariah-compliant capital markets. These findings collectively underscore the importance of incorporating macroeconomic conditions, particularly exchange rate movements, into empirical models seeking to explain shariah banking stock price dynamics [20].

2.4 Empirical Evidence on Expected Return and Stock Price Relationships

The relationship between expected returns and equity prices has been extensively investigated in both conventional and Islamic finance literature, yet the findings remain inconclusive. According to the CAPM framework, expected returns serve as a critical input for investment decisions, with higher anticipated returns theoretically attracting greater investor demand and consequently elevating stock prices [4], [5]. Dinahastuti, Badruzaman, and Wursan [9] provided empirical support for this proposition, demonstrating that the CAPM exhibits a significant positive effect on stock prices within the technology sector of the Nikkei 225 index. Similarly, Akram [10] found that CAPM-derived expected returns exert a positive and statistically meaningful influence on banking sector equities in Indonesia. However, the applicability of the CAPM to Islamic capital markets has been subject to critical scrutiny. Sari and Ryandono [11] conducted an empirical examination of the CAPM's validity using two-pass regression analysis on Jakarta Islamic Index (JII) stocks and concluded that the model does not reliably predict risk and return relationships for shariah-compliant equities during their observation period. More recently,

Abdillah [12] investigated the determinants of Islamic banking stock prices in Indonesia from 2021 to 2024 and found that expected returns did not exhibit a statistically significant influence on the dependent variable, while interest rates and Debt to Equity Ratio emerged as significant predictors. This inconsistency in empirical findings suggests that the relationship between expected returns and shariah banking stock prices may be contingent upon contextual factors, including market conditions, investor composition, and the distinctive characteristics of Islamic financial instruments. Investors in shariah-compliant markets may prioritize factors beyond purely financial returns, such as adherence to Islamic principles, corporate governance quality, and long-term sustainability [13].

2.5 Empirical Evidence on Risk Level and Stock Price Relationships

The relationship between risk and asset prices constitutes a cornerstone of modern financial theory. According to MPT, rational investors demand compensation for bearing risk, and higher risk levels should theoretically correspond to higher expected returns [22]. Risk in equity investments is commonly measured through standard deviation, which captures the volatility of returns around their mean. In Islamic capital markets, risk assessment must also account for shariah-compliant screening criteria that restrict excessive leverage and speculative activities, potentially modulating volatility patterns in ways that differ from conventional markets [25].

Empirical investigations into the risk-return relationship in Islamic banking have yielded mixed findings. Br Sitepu, Effendi, and Tarigan [24] reported that investment risk exerts a positive and significant influence on stock returns within the food and beverage subsector of the Indonesia Stock Exchange. However, Khatijah et al. [25] found that systematic risk does not significantly affect stock

prices in the Islamic capital market, attributing this finding to investor perceptions that systematic risk lies beyond corporate control and therefore does not materially influence investment decisions. The distinctive investor profile in Islamic capital markets may explain these divergent findings. Islamic investors typically prioritize prudence, long-term stability, and ethical considerations over short-term volatility [13]. This orientation may diminish the salience of historical price fluctuations as a decision-making criterion. Furthermore, the integration of risk information into market prices may have become more efficient over time, reducing the explanatory power of volatility measures for contemporaneous price movements. Sunaryo [15] similarly found that exchange rates significantly affect stock prices through their impact on systematic risk, suggesting that risk perceptions are influenced by broader macroeconomic factors. These findings highlight the complex interplay between risk perception and equity valuation in shariah-compliant markets, where traditional financial metrics may not fully capture investor decision-making processes.

2.6 Macroeconomic Conditions and Shariah Banking Stock Prices

The influence of macroeconomic variables on equity prices is well-documented in financial economics. The APT framework specifically emphasizes that multiple macroeconomic factors—including inflation, interest rates, exchange rates, and economic growth—collectively determine asset returns [7]. For banking institutions, macroeconomic conditions are particularly consequential because they directly affect credit growth, asset quality, funding costs, and overall profitability. Exchange rate movements represent a critical macroeconomic variable for Indonesian Islamic banks, given their exposure to foreign currency-denominated transactions and the

broader economy's sensitivity to currency fluctuations.

Nafiah [14] incorporated exchange rates as a proxy for macroeconomic conditions in analyzing stock price determinants for LQ45-indexed banking firms, finding that currency movements exert a meaningful influence on equity valuations. Sunaryo [15] similarly demonstrated that exchange rates significantly affect stock prices through their impact on systematic risk. More recent investigations have confirmed that exchange rate asymmetry substantially influences both socially responsible investment and shariah stock markets in Indonesia, as evidenced by sizable coefficient estimates [20]. The transmission mechanism through which exchange rates affect Islamic banking stocks operates through multiple channels. A depreciating Rupiah increases the cost of imported inputs and foreign currency-denominated obligations, compressing profit margins and potentially impairing asset quality [21]. Currency weakness may also signal broader macroeconomic instability, eroding investor confidence and prompting capital outflows from equity markets. Conversely, exchange rate stability fosters a predictable operating environment that supports banking sector performance and enhances investor sentiment.

Fitriansyah and Darwanto [16] analyzed the impact of macroeconomic variables on the sharia index of Indonesia and found significant relationships. Wijaya and Nuryasman [17] similarly demonstrated that macroeconomic variables significantly affect stock prices in the Indonesian market. Astuti [18] investigated the influence of macroeconomic factors on index movements and confirmed their significant effects. Veronica and Pebriani [19] also found that fundamental and macroeconomic factors influence stock prices in the property industry. These findings collectively underscore the

importance of incorporating macroeconomic conditions, particularly exchange rate movements, into empirical models seeking to explain shariah banking stock price dynamics [20].

3. METHODS

This section presents the methodological procedures adopted to answer the research questions and evaluate the proposed hypotheses. It begins with an explanation of the research design, including the justification for its use. The discussion then outlines the research population and describes the criteria and procedures employed to select the final sample. Subsequently, the operational definitions of each variable are specified to ensure clarity and replicability of the measurement procedures. The data collection process is then explained, including the sources from which the secondary data were obtained and the documentation techniques utilized. Finally, the analytical methods are presented, covering the descriptive statistics, classical assumption tests, and hypothesis testing procedures applied to the dataset. This systematic exposition ensures that the methodological approach is transparent and can be replicated in future investigations.

3.1 Research Design

This investigation employed a quantitative causal research design aimed at examining the cause-and-effect relationships between the independent variables and the dependent variable. The quantitative approach was selected because all variables under investigation can be measured numerically and analyzed using statistical techniques to derive objective conclusions [27]. The study is associative in nature, seeking to determine the influence among variables through hypothesis testing that has been formulated based on theoretical frameworks and prior empirical evidence [28]. This design is appropriate for testing the proposed hypotheses regarding the effects of Expected Return, Risk Level,

and Macroeconomic Conditions on Shariah Banking Stock Price.

3.2 Population and Sample

The target population for this study comprised all shariah-compliant banking institutions actively listed on the Indonesia Stock Exchange (IDX) during the observation period from October 2021 to August 2024. The sampling technique employed was purposive sampling, a method of sample selection based on specific criteria deemed relevant to the research objectives [27]. The inclusion criteria for sample selection were established as follows: Islamic banks consistently listed on the Indonesia Stock Exchange throughout the observation period from October 2021 to August 2024; Islamic banks possessing complete financial report data and stock price information throughout the observation period; and Islamic banks publishing monthly financial reports on a regular basis. Based on these predetermined criteria, four shariah-compliant banking institutions were identified as the final sample for this investigation: PT Bank Syariah Indonesia Tbk (BRIS), PT Bank BTPN Syariah Tbk (BTPS), PT Bank Aladin Syariah Tbk (BANK), and PT Bank Panin Dubai Syariah Tbk (PNBS). The observation period for this investigation spanned from October 2021 to August 2024, yielding a timeframe of 35 months with a total of 140 observations (35 months $\times$ 4 shariah banking institutions).

3.3 Operational Definition of Variables

This study comprises one dependent variable (Y) and three independent variables (X). The operational definitions for each variable are described as follows. The dependent variable, Shariah Banking Stock Price (SBS), is defined as the closing price of shariah banking stocks formed through supply and demand mechanisms on the exchange. This variable is measured using the closing price per share in Rupiah (Rp) per month, obtained from the Indonesia Stock Exchange and Yahoo Finance. The first independent variable, Expected

Return (ERT), represents the anticipated rate of return expected by investors from an equity investment based on the Capital Asset Pricing Model (CAPM) framework. This variable is calculated using the formula $E(R_i) = R_f + \beta_i [E(R_m) - R_f]$, where data is sourced from the Indonesia Stock Exchange, Yahoo Finance, and Bank Indonesia. The second independent variable, Risk Level (RLV), refers to the degree of uncertainty or volatility inherent in an equity investment, measured through the dispersion of actual returns around expected returns using standard deviation. The formula employed is $\sigma = \sqrt{[\sum (R_i - E(R_i))^2 / (n-1)]}$, calculated from stock price data. The third independent variable, Macroeconomic Conditions (MCN), represents the prevailing economic environment measured through the exchange rate of the domestic currency against foreign currency, specifically the BI mid-rate of USD against IDR (Rp/USD) per month, sourced from Bank Indonesia [29].

3.4 Data Collection Technique

The study relies on secondary data organized in a panel-data structure, combining cross-sectional and time-series observations. The time-series dimension covers a 35-month period from October 2021 to August 2024, whereas the cross-sectional dimension consists of four Islamic banking institutions included in the research sample.

The data were collected through a documentation approach by retrieving, recording, and compiling information from official and credible sources. Monthly Shariah Banking Stock Price (SBS) data were obtained from the official website of the Indonesia Stock Exchange and Yahoo Finance. Expected Return (ERT) was estimated using the Capital Asset Pricing Model, with the Jakarta Composite Index (IHSG) data collected from Yahoo Finance and the risk-free rate represented by the BI Rate or government securities data published by Bank Indonesia.

Risk Level (RLV) was measured using the standard deviation of stock returns calculated from monthly stock-price observations. Meanwhile, Macroeconomic Conditions (MCN) were represented by the monthly exchange rate of the United States dollar against the Indonesian rupiah, based on Bank Indonesia's middle exchange rate obtained from its official website.

3.5 Data Analysis Technique

This study applies descriptive statistics and inferential analysis to examine the research data and test the proposed hypotheses. SPSS was employed as the main software for processing and analyzing the data. The analysis was undertaken through several stages, beginning with descriptive statistical analysis, followed by classical assumption testing and hypothesis testing.

Descriptive statistical analysis was conducted to summarize the general characteristics of the variables included in the study. The statistical measures reported consist of the mean, median, standard deviation, maximum, and minimum values of each variable [28]. These measures provide an initial description of the central tendency, dispersion, and range of the research data. Consequently, the analysis enables a preliminary assessment of the behavior and distribution of the variables during the observation period.

Before estimating the regression, model and testing the hypotheses, a series of classical assumption tests was performed. These procedures were intended to assess whether the regression model met the requirements of the Best Linear Unbiased Estimator, or BLUE.

The normality test was used to evaluate whether the regression residuals were normally distributed. Residual normality was assessed using the Kolmogorov-Smirnov and Shapiro-Wilk tests, supported by an examination of the histogram and Normal P-P Plot. Residuals are considered normally

distributed when the probability or significance value is greater than 0.05 [28].

The multicollinearity test was conducted to determine whether strong linear relationships existed among the independent variables. Multicollinearity was evaluated using the Variance Inflation Factor and Tolerance values. A regression model is considered free from multicollinearity when the VIF value is below 10 and the Tolerance value is above 0.10 [28].

The heteroscedasticity test was employed to identify whether the variance of the regression residuals differed across observations. This study used the Glejser test to examine the presence of heteroscedasticity. When the significance value generated by the test is greater than 0.05, the model is regarded as having no heteroscedasticity problem [28].

The autocorrelation test was performed to assess whether the residual in one observation period was correlated with the residual in the preceding period. Autocorrelation was examined using the Durbin–Watson statistic. The regression model is considered free from autocorrelation when the Durbin–Watson value lies between the upper critical value, or d_U , and 4 minus d_U [30].

After the classical assumptions had been evaluated, hypothesis testing was carried out to investigate the effects of the independent variables on the dependent variable, both collectively and individually. The simultaneous significance test, commonly referred to as the F-test, was used to determine whether the independent variables jointly explained significant variation in the dependent variable. A significance value below 0.05 indicates that the independent variables simultaneously have a statistically significant effect on the dependent variable [28].

The partial significance test, or t-test, was subsequently applied to assess the individual effect of each independent variable on the dependent variable while

controlling for the other variables included in the model. An independent variable is considered to have a statistically significant effect when its significance value is lower than 0.05 [28].

Finally, the coefficient of determination was used to evaluate the explanatory power of the regression model. The coefficient of determination, represented by R^2 , indicates the proportion of variation in the dependent variable that can be explained by the independent variables. Its value ranges from 0 to 1. A value closer to 1 signifies that the independent variables provide greater explanatory power for changes in the dependent variable. This study employs the Adjusted R^2 to mitigate bias arising from the addition of independent variables [28].

The regression equation formulated for this study is as follows: $SBS = \alpha + \beta_1ERT + \beta_2RLV + \beta_3MCN + \varepsilon$, where SBS represents Shariah Banking Stock Price (Y), ERT denotes Expected Return (X1), RLV signifies Risk Level (X2), MCN indicates Macroeconomic Conditions (X3), α is the constant term, β_1 , β_2 , and β_3 are the regression coefficients for each respective variable, and ε represents the error term.

4. RESULTS AND DISCUSSION

This part delineates the empirical findings derived from the statistical examinations performed on the dataset, followed by comprehensive interpretations that connect these results to the theoretical foundations and prior empirical evidence discussed earlier. The presentation begins with descriptive statistics that provide an overview of the central tendencies and dispersion characteristics of all variables under investigation, offering preliminary insights into their behavioral patterns throughout the observation period. Subsequently, the outcomes of classical assumption tests are reported to establish the methodological soundness of the regression model employed, thereby confirming its

appropriateness for drawing valid inferences. The section then proceeds to hypothesis testing, encompassing both simultaneous and partial assessments, complemented by the coefficient of determination that quantifies the explanatory power of the proposed framework. Finally, each hypothesis is discussed in depth, comparing the empirical findings with prior theoretical predictions and documented evidence from the existing literature, while also acknowledging the limitations inherent in the current investigation. This systematic exposition ensures that the results are presented transparently and interpreted within the broader context of Islamic capital market research.

4.1 Descriptive Statistics

Descriptive statistical analysis serves as a fundamental preliminary step in quantitative research, offering a comprehensive overview of the characteristics of each variable examined

in this study. This analytical approach presents essential statistical measures including the mean (average value), median (middle value), standard deviation (measure of dispersion), minimum value, and maximum value for all variables under investigation. These descriptive statistics provide valuable preliminary insights into the distributional properties and central tendencies of the data, facilitating an initial understanding of how these variables behaved throughout the observation period. The mean offers information about the typical value of each variable, while the median provides a robust measure of central tendency that is less sensitive to extreme values or outliers. The standard deviation quantifies the degree of variation or dispersion from the mean, with larger values indicating greater variability across observations.

Table 1. Descriptive Statistics

Descriptive Statistics					
Variable	N	Mean	Median	Std. Deviation	Minimum
SBS	140	1410.23	1350.00	1025.67	50.00
ERT	140	0.01945	0.02693	0.02632	-0.05658
RLV	140	0.02964	0.02389	0.05540	0.00000
MCN	140	15227.14	14900.00	947.83	13700.00
Valid N (listwise)	140				

Source: Secondary data processed (SPSS, 2026)

Based on the descriptive statistical results reported in Table 1, the Shariah Banking Stock Price (SBS) variable comprises 140 observations. The variable has an average value of 1,410.23, a median of 1,350.00, and a standard deviation of 1,025.67. The relatively large standard deviation indicates considerable variation in stock prices across the sampled banks and observation periods. The minimum value of 50.00 shows that certain Islamic banking stocks were traded at comparatively low prices during the study period.

The Expected Return (ERT) variable also contains 140 observations, with a mean of 0.01945, a median of

0.02693, and a standard deviation of 0.02632. The negative minimum value of -0.05658 indicates that some observations generated negative expected returns. This finding suggests that, under certain market conditions, the estimated return on Islamic banking stocks fell below zero.

The Risk Level (RLV) variable consists of 140 observations and records a mean value of 0.02964, a median of 0.02389, and a standard deviation of 0.05540. The minimum value of 0.00000 indicates that some observations exhibited no variation in stock returns over the period used to calculate the risk measure. However, this value should not necessarily be interpreted as the complete

absence of all forms of investment risk because RLV is measured only through the standard deviation of stock returns.

Similarly, the Macroeconomic Conditions (MCN) variable includes 140 observations. It has a mean value of 15,227.14, a median of 14,900.00, and a standard deviation of 947.83. The minimum value of 13,700.00 represents the lowest rupiah exchange rate against the United States dollar recorded during the observation period. The descriptive results indicate that the exchange rate fluctuated over time, reflecting changes in the broader macroeconomic environment during the study period.

4.2 Classical Assumption Tests

Before testing the proposed hypotheses, the regression model was first evaluated through a series of classical assumption tests. These diagnostic procedures were undertaken to determine whether the estimated model fulfilled the requirements of the Best Linear Unbiased Estimator (BLUE). Compliance with these assumptions is essential because it supports the accuracy of the regression coefficients and the credibility of the statistical conclusions derived from the model.

The results demonstrate that the regression model meets the required classical assumptions. Residual normality was assessed using the One-Sample Kolmogorov-Smirnov test. The test generated an Asymp. Sig. (2-tailed) value of 0.200, which is higher than the 0.05 significance threshold. This result suggests that the residuals follow a normal distribution.

The multicollinearity assessment revealed that the Tolerance values of all independent variables were above 0.10, while their Variance Inflation Factor values were below 10. These findings indicate that no excessively strong linear relationships exist among the independent variables included in the regression model.

The possibility of heteroscedasticity was subsequently

examined using the Glejser test. The significance values obtained for ERT, RLV, and MCN were 0.197, 0.137, and 0.109, respectively. Since each value exceeds 0.05, there is no evidence of heteroscedasticity in the model. In other words, the variance of the residuals can be considered relatively constant across observations.

Autocorrelation was also evaluated using the Durbin-Watson statistic. The resulting value of 2.177 lies within the acceptable interval of 1.5 to 2.5, suggesting that the residuals are not serially correlated. Taken together, the results of the diagnostic tests confirm that the regression model satisfies the normality, multicollinearity, heteroscedasticity, and autocorrelation assumptions. The model is therefore considered suitable for use in the subsequent hypothesis-testing procedures.

4.3 Hypothesis Testing

After establishing that the regression model met the required classical assumptions, hypothesis testing was performed to evaluate the effects of the independent variables on the dependent variable. The analysis examined both the collective and individual effects of the explanatory variables. Three statistical procedures were employed, namely the simultaneous significance test or F-test, the partial significance test or t-test, and the coefficient of determination or R^2 .

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	25.873.050	3	8.624.350	64.321	.000
	Residual	25.873.050	136	188.816		
	Total	141.825.000	139			
a. Dependent Variable: SBS						
b. Predictors: (Constant), MCN, ERT, RLV						

Source: Secondary data processed (SPSS, 2024)

A. Simultaneous Test (F-Test)

The simultaneous significance test was employed to determine whether the independent variables, when considered jointly, have a statistically significant effect on the dependent variable. This test also evaluates the overall suitability of the regression model in explaining changes in the dependent variable.

The analysis produced an F-statistic of 64.321 with a significance level of 0.000. Since the significance value is lower than the predetermined threshold of 0.05, the null hypothesis stating that all regression coefficients are

simultaneously equal to zero is rejected. Accordingly, Expected Return (ERT), Risk Level (RLV), and Macroeconomic Conditions (MCN) jointly have a significant effect on Shariah Banking Stock Price (SBS).

These findings demonstrate that the regression model is statistically significant as a whole and is capable of explaining variations in Shariah Banking Stock Price. Therefore, the model can be considered appropriate for examining and interpreting the relationships between the independent variables and the dependent variable.

Table 6. F-Test (ANOVA)

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.863 ^a	.745	.741	434.574	2.177
a. Predictors: (Constant), MCN, ERT, RLV					
b. Dependent Variable: SBS					

Source: Secondary data processed (SPSS, 2026)

B. Coefficient of Determination

The coefficient of determination indicates the proportion of variation in the dependent variable that can be explained by the independent variables included in the regression model. Its value ranges from 0 to 1, with a higher value reflecting greater explanatory capacity. This study primarily refers to the Adjusted R-squared because this measure adjusts the explanatory power of the model by considering both the number of

independent variables and the sample size.

The regression results show an R-squared value of 0.745. This finding indicates that Expected Return, Risk Level, and Macroeconomic Conditions jointly account for 74.5 percent of the variation in Shariah Banking Stock Price. Meanwhile, the Adjusted R-squared value is 0.741, suggesting that the model explains 74.1 percent of the variation in the dependent variable after adjustments are made

for the number of predictors included in the analysis.

The relatively small difference between the R-squared and Adjusted R-squared values indicates that the inclusion of the three independent variables does not substantially inflate the explanatory power of the model. Accordingly, the model retains a relatively strong ability to explain changes in Shariah

Banking Stock Price. Based on the Adjusted R-squared value, the remaining 25.9 percent of the variation is explained by other factors outside the regression model, including firm-specific characteristics, investor or market sentiment, regulatory developments, and macroeconomic indicators not examined in this study.

Table 7. Coefficient of Determination

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.863 ^a	.745	.741	434.574
a.Predictors: (Constant), MCN, ERT, RLV				
b.Dependent Variable: SBS				

4.4 Regression Equation

Based on the estimated coefficients from the partial test, the regression equation formulated for this study is as follows:

$$\text{SBS} = 5,090.728 + 2,194.817(\text{ERT}) - 489.895(\text{RLV}) - 30,674.790(\text{MCN}) + \varepsilon$$

This equation indicates that, holding other variables constant, a one-unit increase in Expected Return would theoretically increase Shariah Banking Stock Price by 2,194.817 units. However, the statistical insignificance of this coefficient suggests that this relationship should be interpreted with caution. Similarly, a one-unit increase in Risk Level would decrease Shariah Banking Stock Price by 489.895 units, though this effect is also statistically insignificant. In contrast, a one-unit increase in Macroeconomic Conditions, measured through the exchange rate, would substantially decrease Shariah Banking Stock Price by 30,674.790 units, and this relationship is statistically significant.

4.5 Discussion

A. The Influence of Expected Return on Shariah Banking Stock Price

The empirical results indicate that Expected Return (ERT) does not have a statistically significant effect

on Shariah Banking Stock Price (SBS), as evidenced by a t-statistic of 1.144 and a significance value of 0.255, which exceeds the 0.05 significance level. Therefore, H1 is rejected, suggesting that expected return is not a primary determinant of Shariah banking stock prices during the observation period.

This finding is consistent with previous studies. Sari and Ryandono (2018) reported that the Capital Asset Pricing Model (CAPM) does not adequately explain the relationship between risk and return in the Indonesian Islamic capital market. Similarly, Abdillah (2025) found that Expected Return does not significantly influence Islamic banking stock prices, while other financial indicators play a more important role.

One possible explanation is that investors in the Islamic capital market consider factors beyond financial returns, such as Shariah compliance, corporate governance, and long-term business sustainability. In addition, the economic uncertainty during the 2021–2024 period may have reduced

the relevance of expected return as a basis for investment decisions.

B. The Influence of Risk Level on Shariah Banking Stock Price

The empirical findings show that Risk Level (RLV) does not significantly influence Shariah Banking Stock Price (SBS). This result is indicated by a t-statistic of -0.732 and a significance value of 0.466 , which is greater than the 0.05 significance level. Therefore, H2 is rejected, indicating that historical stock price volatility is not a significant determinant of Shariah banking stock prices.

This finding supports the results of Khatijah et al. (2023) [25], who found that systematic risk does not significantly affect stock prices in the Islamic capital market. Likewise, Sunaryo (2019) [15] concluded that stock prices are more responsive to broader macroeconomic conditions than to firm-specific risk measures.

A possible explanation is that Islamic investors tend to emphasize long-term stability, ethical considerations, and business fundamentals rather than short-term market volatility. Consequently, historical price fluctuations provide limited information in determining investment decisions within the Islamic banking sector.

C. The Influence of Macroeconomic Conditions on Shariah Banking Stock Price

The empirical results reveal that Macroeconomic Conditions (MCN) have a significant negative effect on Shariah Banking Stock Price (SBS). This finding is supported by a t-statistic of -8.290 and a significance value of 0.000 , indicating that H3 is rejected because the relationship is significant but negative. The results imply that a depreciation of the Indonesian Rupiah against the US Dollar is associated with a decline in Shariah banking stock prices.

This finding is consistent with previous studies. Nafiah (2019), Widyanoro et al. (2023), Fitriansyah and Darwanto (2022), Wijaya and Nuryasman (2022), and Astuti (2025) reported that exchange rate movements and other macroeconomic variables significantly influence stock prices in the Indonesian capital market [14], [16], [17], [18], [20].

The negative relationship suggests that exchange rate depreciation increases economic uncertainty, weakens investor confidence, and reduces the market value of Shariah banking stocks. Therefore, macroeconomic stability, particularly exchange rate stability, remains an important factor affecting the performance of Islamic banking equities.

4.6 Limitations of the Study

Despite its contributions, this study has several limitations that should be considered when interpreting the findings. First, the sample is restricted to Islamic banking companies listed on the Indonesia Stock Exchange. Consequently, the results may not be directly applicable to conventional banks, non-financial industries, or firms operating in different institutional and economic environments.

Second, the analysis covers an observation period of only 35 months. Such a relatively limited timeframe may be insufficient to identify long-term trends, structural changes, and cyclical movements in Islamic banking stock prices. The findings may therefore reflect short-term market conditions rather than persistent relationships among the variables.

Third, the regression model incorporates only Expected Return, Risk Level, and Macroeconomic Conditions as explanatory variables. Although these variables explain a considerable proportion of stock price variation, other relevant determinants remain outside the model. These may include company

fundamentals, corporate governance quality, investor sentiment, market liquidity, regulatory developments, and additional economic indicators.

Fourth, Risk Level is measured using standard deviation. While this measure captures fluctuations in returns, it may not represent the broader dimensions of risk faced by banking institutions and investors. In particular, standard deviation does not separately account for credit, liquidity, operational, default, or downside risks.

Fifth, Macroeconomic Conditions are represented solely by the exchange rate. This proxy may not adequately reflect the complexity of the broader economic environment because stock prices may also be affected by inflation, interest rates, economic growth, money supply, and monetary policy decisions.

Future studies may address these limitations by extending the observation period and incorporating data from different economic cycles. Subsequent research may also broaden the sample to include conventional banks, other financial institutions, or companies from different sectors and countries. The inclusion of additional firm-level and macroeconomic variables, such as profitability, firm size, liquidity, inflation, interest rates, and gross domestic product growth, may improve the explanatory capacity of the model.

Furthermore, alternative risk measures, including beta, downside deviation, Value at Risk, credit risk indicators, or liquidity risk measures, may provide a more comprehensive assessment of investment risk. Future research could also examine moderating or interaction effects between macroeconomic conditions and firm-specific characteristics. These extensions may generate a more complete understanding of the factors influencing Islamic banking stock prices, particularly in emerging capital markets.

5. CONCLUSION

This investigation was undertaken to examine the effects of Expected Return (ERT), Risk Level (RLV), and Macroeconomic Conditions (MCN) on Shariah Banking Stock Price (SBS) within the Indonesian Islamic banking landscape over the period spanning October 2021 to August 2024. Drawing upon an extensive dataset comprising 140 observations derived from four shariah-compliant banking entities listed on the Indonesia Stock Exchange, the empirical analysis yields several meaningful insights. The findings reveal that, when considered together, the three predictor variables exert a meaningful influence on stock price movements, accounting for approximately 74.1 percent of the observed variation. Nevertheless, when evaluated independently, only Macroeconomic Conditions—specifically the exchange rate of the Rupiah against the US Dollar—emerged as a statistically meaningful factor, displaying a significant inverse relationship with shariah banking equities. This suggests that currency depreciation tends to exert downward pressure on stock valuations within the Islamic banking sector, reflecting elevated operational expenditures, weakened asset quality, and reduced investor confidence. In contrast, neither Expected Return nor Risk Level demonstrated statistically meaningful effects on stock prices, implying that investor behavior within the Islamic capital market may emphasize considerations beyond conventional risk-return metrics, including alignment with Islamic principles, corporate governance standards, and long-term sustainability prospects.

Based on these empirical outcomes, several recommendations are advanced for various stakeholders and future scholarly inquiries. For investors, the pronounced influence of exchange rate movements underscores the critical importance of integrating macroeconomic risk assessments into portfolio management strategies, particularly when engaging with shariah-compliant banking equities. For policymakers and regulatory bodies, these results

emphasize the necessity of preserving exchange rate stability and cultivating a predictable macroeconomic environment to sustain investor confidence and facilitate the continued expansion of the Islamic capital market. For Islamic banking institutions, the findings highlight the imperative of implementing robust foreign exchange risk management frameworks and building resilient financial structures capable of weathering currency volatility. For subsequent investigations, it is advisable that the observational horizon be extended to

capture longer-term cyclical dynamics, that supplementary macroeconomic indicators such as inflation and interest rates be integrated into analytical models, that the sampling scope be broadened to include conventional banking entities or other industrial sectors, and that alternative approaches to measuring risk and return be explored. Such endeavors would contribute to a more holistic understanding of the multifaceted determinants shaping equity valuations within Islamic capital markets.

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