



THE IMPACT OF RETURN ON ASSETS (ROA) AND RETURN ON EQUITY (ROE) ON STOCK PRICES: EVIDENCE FROM PT BANK RAKYAT INDONESIA (PERSERO) TBK (2014–2024)

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Abstract

This study investigates whether profitability explains stock price movements in a major Indonesian banking issuer, PT Bank Rakyat Indonesia (Persero) Tbk (BBRI), during 2014–2024. Motivated by mixed evidence on the value relevance of accounting performance in emerging markets, the research tests the effects of Return on Assets (ROA) and Return on Equity (ROE) on BBRI's annual stock price. Using a quantitative design, the study analyzes annual secondary data (11 observations) compiled from audited financial statements and stock price records. Simple linear regression is used to estimate the partial effects of ROA and ROE, while multiple linear regression evaluates their joint explanatory power, with a 5% significance threshold. The partial results indicate that ROA is statistically insignificant ($t = -1.341$; $p = 0.213$; $R^2 = 0.166$) and ROE is also insignificant ($t = -1.264$; $p = 0.238$; $R^2 = 0.151$). In the multivariate model, both coefficients remain negative and insignificant, and the overall model is not significant ($F = 0.838$; $p = 0.467$), with modest explanatory power ($R^2 = 0.173$). These findings suggest that annual stock price variation in BBRI is driven primarily by factors beyond profitability, such as market sentiment and macroeconomic conditions. Practically, investors should avoid relying solely on ROA and ROE when valuing BBRI, while managers may need to complement profitability improvements with clearer market signaling. The study is limited by the small annual sample and potential omitted variables; future research should employ higher-frequency data and incorporate macro and bank-specific controls to improve inference and test non-linear effects.

Keywords: stock price; profitability; ROA; ROE; BBRI

Abstrak

Penelitian ini menyelidiki apakah profitabilitas menjelaskan pergerakan harga saham pada emiten perbankan utama Indonesia, PT Bank Rakyat Indonesia (Persero) Tbk (BBRI), selama tahun 2014–2024. Termotivasi oleh bukti yang beragam mengenai relevansi nilai kinerja akuntansi di pasar negara berkembang, penelitian ini menguji pengaruh Return on Assets (ROA) dan Return on Equity (ROE) terhadap harga saham tahunan BBRI. Menggunakan desain kuantitatif, penelitian ini menganalisis data sekunder tahunan (11 observasi) yang dikumpulkan dari laporan keuangan yang diaudit dan catatan harga saham. Regresi linier sederhana digunakan untuk memperkirakan pengaruh parsial ROA dan ROE, sedangkan regresi linier berganda mengevaluasi kekuatan penjelasan gabungannya, dengan ambang batas signifikansi 5%. Hasil parsial menunjukkan bahwa ROA secara statistik tidak



signifikan ($t = -1,341$; $p = 0,213$; $R^2 = 0,166$) dan ROE juga tidak signifikan ($t = -1,264$; $p = 0,238$; $R^2 = 0,151$). Dalam model multivariat, kedua koefisien tetap negatif dan tidak signifikan, dan model keseluruhan tidak signifikan ($F = 0,838$; $p = 0,467$), dengan daya penjas yang moderat ($R^2 = 0,173$). Temuan ini menunjukkan bahwa variasi harga saham tahunan di BBRI terutama didorong oleh faktor-faktor di luar profitabilitas, seperti sentimen pasar dan kondisi makroekonomi. Secara praktis, investor harus menghindari ketergantungan semata-mata pada ROA dan ROE ketika menilai BBRI, sementara manajer mungkin perlu melengkapi peningkatan profitabilitas dengan sinyal pasar yang lebih jelas. Studi ini dibatasi oleh sampel tahunan yang kecil dan potensi variabel yang diabaikan; penelitian masa depan harus menggunakan data frekuensi yang lebih tinggi dan menggabungkan kontrol makro dan spesifik bank untuk meningkatkan inferensi dan menguji efek non-linear.

Kata kunci: harga saham; profitabilitas; ROA; ROE; BBRI

I. INTRODUCTION

The capital market plays a strategic role in the modern economy as a mechanism for raising long-term funds for corporations and as a vehicle for allocating resources by investors through the price formation process. In Indonesia, this role is supported by capital market institutions and regulations that expand access to funding and encourage investor participation in various investment instruments. Within this framework, stock prices are viewed as a summary of market expectations regarding performance prospects, risks, and available information. The efficient market hypothesis emphasizes that, within a certain level of efficiency, security prices will adjust as new information is processed by market participants; therefore, changes in a company's fundamentals should be reflected in stock prices (Fama, 1970).

In accounting and finance literature, the relationship between accounting information and a company's market value is discussed through the value relevance approach, which examines the extent to which accounting numbers capture information used by investors in equity valuation (Barth, Beaver, & Landsman, 2001). Classical studies also show that earnings information has information content associated with market reactions, thus strengthening the argument that accounting information is relevant for investment decisions (Ball & Brown, 1968). From a valuation perspective, accounting-based models position earnings and book value as components that theoretically explain a company's value, thus opening up the opportunity to use financial ratios as proxies for fundamental signals (Ohlson, 1995).

Among the most frequently used indicators in fundamental analysis are profitability ratios, particularly Return on Assets (ROA) and Return on Equity (ROE). ROA represents a company's ability to generate profits from total assets under management, while ROE indicates the rate of return to shareholders on equity. From a signaling theory perspective, profitability performance can be understood as a signal of company quality that helps reduce information asymmetry between management and investors (Spence, 1973). Thus, increasing ROA/ROE is theoretically expected to strengthen the perception of firm quality, encourage demand for shares, and lead to an increase in share prices.

However, the relationship between profitability and stock prices in the banking sector is not always linear or consistent. The banking industry operates within a strict regulatory and supervisory environment, including capital requirements, risk management, and strengthening the resilience of the banking system, as globally formulated in the Basel III framework (Basel Committee on Banking Supervision, n.d.). These characteristics mean that ROA and ROE reflect not only operational efficiency but are also influenced by risk management policies, credit quality, loss provisions, funding structure (cost of funds), and the composition of productive assets. Furthermore, because banks are sensitive to interest rates and exchange rates, their stock prices are often exposed to market and macro risks that can override the influence of historical profitability indicators. Multifactor studies on banking stocks indicate the sensitivity of bank stock returns to market factors, interest rates, and exchange rates (Choi, Elyasiani, & Kopecky, 1992).

Furthermore, stock price movements are generally influenced by economic forces and macro variables that influence discount rates, growth expectations, and investor risk preferences. Empirical research on the stock market shows that economic factors can be related to variations in stock market returns, allowing company fundamentals to be "masked" by macroeconomic dynamics and risk sentiment (Chen, Roll, & Ross, 1986). Within the framework of multifactor asset pricing theory, systematic risk factors are viewed as important determinants of return movements, so investor assessments focus not only on profitability but also on the asset's sensitivity to specific risk factors (Ross, 1976). This is particularly relevant for large-cap issuers, whose stock prices tend to respond more quickly to changes in macroeconomic expectations and institutional investor capital flows.

Empirical findings regarding the influence of ROA and ROE on stock prices in the literature are also not fully convergent. Some studies support the view that profitability is relevant to market value, in line with the concepts of value relevance and performance signals (Barth et al., 2001; Ohlson, 1995). However, other studies find weak or insignificant effects in certain contexts—for example, when investors place greater weight on systemic risk, interest rate changes, or economic uncertainty—making historical profitability indicators less informative in explaining stock prices. These differences in results may be influenced by the research design (cross-firm vs. issuer-focused), differences in proxies for the dependent variable (price vs. return), and differences in data frequency (annual/quarterly/monthly), which alter the sensitivity of the measurements.

In Indonesia, there are several research gaps that reinforce the urgency of this research. First, many studies use cross-firm designs that combine multiple banks or even sectors. This approach does increase the number of observations, but risks introducing high levels of heterogeneity—differences in business models, funding structures, asset quality, growth strategies, and governance—which can obscure the relationship between profitability and stock prices at the issuer level. Second, cross-firm studies often face limitations in controlling for unobserved heterogeneity specific to each bank, so the ROA/ROE coefficients potentially capture a mix of fundamental effects and unmeasured company characteristics. Third, several studies emphasize statistical significance without emphasizing the model's explanatory power, whereas in the context of value relevance, it is crucial to assess whether profitability is truly the primary driver of price movements or merely a minor factor among other determinants (Barth et al., 2001). Fourth, an important question remains open for large banking issuers: do ROA and ROE remain "valuable" for stock prices when the market is highly liquid and information is quickly absorbed, or does the market respond more to external factors.

Based on this gap, this study focuses on PT Bank Rakyat Indonesia (Persero) Tbk (BBRI) for the 2014–2024 period. BBRI was chosen because it is a banking issuer listed on the Indonesia Stock Exchange and has high market visibility, making it relevant to test whether classic profitability indicators are still informative in explaining stock prices in large banks (Indonesia Stock Exchange, n.d.). Focusing on a single issuer is intended to reduce cross-company heterogeneity and emphasize the issuer's internal dynamics in stock price

formation. Meanwhile, the 2014–2024 timeframe provides a long-term scope to capture variations in market conditions and economic dynamics that have the potential to change stock price sensitivity to accounting information (Fama, 1970; Chen et al., 1986).

The novelty of this research lies in three main contributions. First, this study presents long-term empirical evidence based on a single issuer of a large bank, thus providing more context-specific results that are easily translated into investment decisions on BBRI shares. Second, the study examines ROA and ROE both partially and simultaneously, thus assessing whether the two ratios are complementary or redundant in explaining stock prices in the same context (Ohlson, 1995). Third, the study emphasizes practical implications: if profitability has low explanatory power, investors and management need to incorporate other factors—such as macro variables and market risk—in the valuation process and performance communication, in line with evidence of the sensitivity of bank shares to market factors and interest rates (Choi et al., 1992) and the influence of economic forces on the stock market (Chen et al., 1986).

Methodologically, this study uses a quantitative approach with annual secondary data. Testing is carried out through simple linear regression to assess the partial effect of ROA and ROE and multiple linear regression to test the simultaneous effect with a significance level of 5 percent. With this design, the study aims to answer three questions: (1) does ROA affect BBRI's stock price, (2) does ROE affect BBRI's stock price, and (3) do ROA and ROE simultaneously affect BBRI's stock price for the 2014–2024 period. The structure of this article is structured as follows: the methods section explains the data and analysis model; the results section presents the empirical findings; the discussion section interprets the findings within the theoretical and literature framework; and the final section concludes the implications, limitations, and agenda for further research.

II. THEORETICAL STUDIES

Stock Price Formation and Information in Capital Markets.

Capital markets facilitate long-term financing and allow investors to allocate funds to companies with attractive risk-return profiles. In modern finance, stock prices are assumed to incorporate available information, implying that price movements often reflect updated expectations rather than simply the release of anticipated accounting figures. This view is consistent with the Efficient Market Hypothesis (EMH), which states that in informationally

efficient markets, publicly available information is quickly incorporated into prices, and only unexpected information systematically moves prices.

Early empirical research also supported the idea that accounting information can be relevant to investors, particularly when it contains new signals about firm performance. Ball and Brown (1968) documented that earnings information is associated with changes in security prices, illustrating the informational role of accounting earnings. However, the strength of this association is context-dependent: market structure, firm characteristics, and the macro-financial environment can strengthen or weaken the extent to which profitability information is translated into price adjustments.

From an equity valuation perspective, stock prices can be interpreted as a market-based proxy for intrinsic value, which is formed by expectations of future cash flows and a discount rate. In discounted cash flow (DCF) logic, valuation requires estimating current cash flows, forecasting future cash flows (growth), and selecting an appropriate discount rate that reflects risk. Because discount rates and growth expectations are influenced by macroeconomic conditions and investor sentiment, stock prices—especially for large-cap companies—can deviate from what contemporary profitability ratios alone suggest.

The Value Relevance of Accounting Measures and Profitability Signals.

Value relevance research evaluates how well accounting numbers capture the information used by equity investors. Ohlson's valuation framework highlights that market value relates to earnings, book value, and dividends in a coherent equity valuation model. Subsequent discussions in the literature emphasize that value relevance is not uniform across environments and is influenced by institutional factors and the information environment.

In this study, profitability is operationalized using Return on Assets (ROA) and Return on Equity (ROE). These ratios are widely used because they summarize operational performance into metrics that can be compared over time. In your manuscript, ROA is defined as the ratio indicating the return on total assets employed, calculated as net income divided by total assets (Kasmir, 2012). ROE captures the return generated for equity holders, measured as net income after tax divided by equity (equity).

Conceptually, a higher ROA/ROE should strengthen investor confidence in a company's ability to generate profits and, ultimately, cash flow that can be distributed (dividends) or reinvested for growth. Here we also frame this logic by noting that higher

profitability can increase dividend potential and attract more investors, thereby supporting higher stock prices.

However, signaling theory suggests that profitability can influence prices through the credibility of the signals it conveys to investors. In situations with information asymmetry, dividend policy can serve as a signal of expected cash flows and firm quality. When investors rely more on dividend payment stability or forward guidance than on contemporary profitability ratios, ROA/ROE may have limited additional explanatory power for stock prices—especially if the market has already priced in expected profitability.

Macro-Financial Risk Factors and Bank Stock Pricing.

Stock prices, particularly in the banking sector, are sensitive to macro-financial conditions. Multifactor asset pricing perspectives, such as Arbitrage Pricing Theory (APT), argue that expected returns (and therefore prices) are driven by multiple systematic risk factors rather than single firm-specific metrics. Empirically, macroeconomic forces—such as inflation dynamics, interest rate structures, and credit spreads—have been shown to be factored risks in equity markets.

For bank stocks, this sensitivity can be even more pronounced. Multifactor models of bank stock returns show that bank equities can respond to overall market movements, interest rate risk, and exchange rate risk. These findings imply that profitability ratios can be overshadowed by shifts in discount rates, risk premiums, liquidity conditions, and external shocks that simultaneously affect valuation multiples across the banking sector.

Furthermore, the banking industry operates under a regulatory environment designed to strengthen resilience and risk management (e.g., Basel III), which can impact banks' cost of capital, lending capacity, and risk profiles, thus indirectly shaping equity valuations and price dynamics. This regulatory and macroeconomic context is relevant when interpreting the relationship between ROA/ROE and stock prices, as stock price changes may reflect market reassessments of risk and regulation, rather than profitability per se.

Contextualization of the Study: BBRI as a Large-Capitalized Bank (2014–2024).

This study focuses on PT Bank Rakyat Indonesia (Persero) Tbk (BBRI), a company listed on the Indonesia Stock Exchange (IDX). Large-cap banking stocks like BBRI are often influenced by broad market sentiment and macroeconomic cycles, given their role as sectoral indicators and high liquidity. The 2014–2024 period also encompasses various economic

regimes, which can impact profitability and valuation channels, potentially weakening the direct relationship between profitability ratios and stock prices.

Your empirical results indicate that ROA and ROE do not significantly influence BBRI's stock price, either partially or simultaneously, with a relatively small coefficient of determination (R^2), and the remaining variation is due to factors outside the model (market conditions, inflation, interest rates, sentiment, and other external factors).

This result is theoretically plausible based on the EMH and multifactor pricing: if the market anticipates profitability and stock prices are driven by systematic shocks (interest rates, shifts in risk premiums), ROA/ROE may have limited additional explanatory power for price variations. Research gap and novelty (positioning for an article)

Previous studies often report mixed evidence regarding the profitability–stock price relationship due to differences in research design (panel vs. single-firm), dependent variable (price vs. return), measurement frequency (annual vs. quarterly), and the inclusion of macro controls. Against this backdrop, this study contributes by.

1. Single-firm, large-capitalization focus: Examining profitability effects within Indonesia's dominant banks can reveal whether firm-level profitability signals remain informative when macro and sectoral factors are strong.
2. Long-term regime coverage (2014–2024): The extended period captures structural shifts in the economy and capital markets, providing a more robust test of the stability of the profitability-price relationship.
3. Implication-driven novelty: These findings motivate future models that integrate macro variables (interest rates, inflation, exchange rates), bank risk indicators (credit quality, capital adequacy), and valuation measures (PBV/PER) to better explain price dynamics, consistent with a multifactorial view of equity pricing.

III. RESEARCH METHODS

This research is a descriptive explanatory research with a quantitative approach that aims to analyze the effect of Return on Assets (ROA) and Return on Equity (ROE) as independent variables on stock prices as dependent variables at PT Bank Rakyat Indonesia (Persero) Tbk. The data used consists of quantitative data in the form of financial reports and BBRI stock price data for the period 2014–2024 as well as qualitative data in the form of a general description of the company, sourced from secondary data from the company's official

publications and the Indonesia Stock Exchange. Data collection techniques are carried out through documentation studies of financial reports and historical stock price data. Data analysis methods include calculating ROA and ROE according to the operational definitions of the variables, simple regression analysis and multiple regression to test the partial and simultaneous effects of independent variables on stock prices, correlation analysis to determine the level of relationship between variables, coefficient of determination analysis to measure the contribution of independent variables, and hypothesis testing using the t-test with a significance level of 5%.

IV. RESEARCH RESULTS

The simple linear regression results show that ROA has a negative and insignificant regression coefficient ($p = 0.213$; $R^2 = 0.166$). For ROE, the regression coefficient is also negative and insignificant ($p = 0.238$; $R^2 = 0.151$). In the multiple regression model, ROA ($p = 0.652$) and ROE ($p = 0.804$) are insignificant, and the simultaneous test shows an F value of 0.838 with $p = 0.467$, indicating that ROA and ROE together have no significant effect on stock prices. The R^2 value of 0.173 indicates the model's relatively low explanatory power.

Table 1. Summary of Regression Results

Model	Variabel	B	t	p	R ²	Uji F (p)	Keputusan
Simple regression	ROA	-1011,140	-1,341	0,213	0,166	-	Not significant
Simple regression	ROE	-118,634	-1,264	0,238	0,151	-	Not significant
Multiple regression	ROA	-691,289	-0,468	0,652	0,173	0,467	Not significant
Multiple regression	ROE	-46,827	-0,257	0,804	0,173	0,467	Not significant

V. CONCLUSION

Based on the test results, ROA and ROE did not significantly influence BBRI's share price, either partially or simultaneously, during the 2014–2024 period. Future research is recommended to expand the sample size (e.g., using quarterly data) and add other variables such as inflation, interest rates, exchange rates, and market sentiment to improve the model's predictive capabilities.

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