The Influence of Profitability and Price on Book Value on Stock Prices (A Study on Banking Companies in the Indonesia Stock Exchange in the LQ45 Index for the Years 2019- 2023)

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Abstract. This research investigates the influence of profitability, dividend policy, and Price to Book Value (PBV) on banking businesses' stock prices on the Indonesia Stock Exchange's LQ45 index from 2019 to 2023. This research employs a descriptive-quantitative analysis with a classical assumption test. Data is collected from secondary sources in financial statements. The statistical techniques include multiple linear regression analysis, multiple correlation, determination coefficient, t-test, and F-test. Profitability is measured using (EPS). The findings indicate that profitability measured by EPS has a significant positive impact on stock prices. Furthermore, PBV demonstrates a significant positive correlation with stock prices, suggesting that companies with higher market values than their book values tend to have higher stock prices. These results support signaling theory, which posits that financial reports and corporate policies serve as signals to investors regarding the financial health and prospects of the company. The study sug-gests that banking companies aiming to enhance their stock prices should focus on improving profitability, maintaining stable dividend policies, and increasing market values. The implications of these findings can aid compa-ny managers, investors, and policymakers in making better decisions regard-ing investment and corporate management.

Keywords: Profitability, Price to Book Value, Stock Price.

1   Introduction

The capital market is an essential part of a country's economy, functioning as a system that transfers funds from investors to businesses and institutions needing capital for growth, operations, and development. As stated in [1], the capital market has two main roles: first, acting as a financial intermediary to help companies raise funds from the public (investors), and second, serving as an investment platform where the public can invest in financial instruments. Indonesia's capital market has consistently grown, with positive performance throughout 2023, as seen in the Jakarta Composite Index (IHSG),

which closed at 7,303.89 on December 28, 2023, marking a 6.62% increase compared to the end of 2022 [2].

Due to the IHSG's growth from 2019 to 2023, several sectors, including banking, have expanded significantly. The banking industry is a crucial part of the economy, aiding capital flow, investment financing, and financial services. It is highly affected by changes in the capital market due to its role in financial intermediation and in-vestment. The banking sector has shown strong performance, as evidenced by a 33.53% increase in the banking sector issuer index over the past five years, according to the INFOBANK15 index [2] (see Table 1).

Table 1. Data on Banking Sector Share Prices Registered on BEI 2019-2023 in LQ45 Index

NO	CODE	YEAR				
		2019	2020	2021	2022	2023
1	ARTO	386.82	3,566.11	16,000	3,720	2,900
2	BRIS	321.85	2,194.44	1,736.05	1,290	1,740
3	BBCA	6,685	6,770	7,300	8,550	9,400
4	BMRI	3,837.50	3,162.50	3,512.50	4,962.50	6,050
5	BBTN	2,256.54	1,532.50	1,536.94	1,350	1,250
6	BBRI	3,999.93	3,790.84	4,110	4,940	5,725
7	BBNI	3,925.00	3,087.50	3,375.00	4,612.50	5,375
Average		3,058.95	3,443.41	5,367.21	4,203.57	4,634.29

Source: Author's Work

The table above shows stock price data for various banking companies listed on the Indonesia Stock Exchange and LQ45 from 2019 to 2024. The data highlights notable fluctuations in stock prices within the banking sector, with PT Bank Jago Tbk reaching the highest price at IDR 16,000 per share. At the same time, PT Bank Central Asia Tbk demonstrated stable price growth, reflecting consistent and strong perfor-mance in the industry.

A key factor influencing stock prices is a company's profitability. Research by [3] shows that profitability, Earnings per Share (EPS) have a significant and beneficial ef-fect on stock prices. This lends credence to the theory that increased profitability leads to higher stock prices, as great financial performance entices investors. On the other hand, a decline in profitability may cause stock prices to decrease. Additionally, the price-to-book value (PBV) ratio is an important indicator in assessing stock pric-es. PBV compares a stock's market price to its book value per share. A low PBV suggests that a stock is undervalued relative to its asset value, which could attract investors and increase stock prices. According to research by [4], a low PBV is often seen as an indi-cation of undervaluation, which increases investor interest, raising demand and boost-ing stock prices.

A company's performance is critical for decision-makers and investors in the stock market. In capital markets, stocks represent ownership in a company, and purchasing shares grants investors partial ownership. As a result, stock prices represent the com-pany's total capital divided by the number of shares issued. Signaling theory, initially proposed by Michael Spence in 1973, describes how businesses convey their quality

and performance to the market during asymmetric data. Companies use various indicators, such as profitability and price-to-book value (PBV), to signal investors' financial health and growth potential.

Several factors influence stock prices, notably profitability and price-to-book value (PBV). Profitability, typically measured by Earnings per Share (EPS), is a key indicator of a company's financial health. Studies indicate higher EPS correlates with increased investor interest, leading to higher stock prices. A robust EPS reflects a company's ability to generate profit for shareholders, making it an attractive investment option [5].

The formula for calculating EPS is:

$$\text{EPS} = \frac{Net\ Income - Dividend\ Payment}{Weighted\ average\ shares\ outstanding} \tag{1}$$

PBV is a vital valuation metric, comparing The ratio between a stock's market price and book value. A reduced PBV indicates that a stock may be undervalued relative to its assets, attracting investors and increasing stock prices. The PBV is calculated using the formula:

$$PBV = \frac{Stock\ Price\ Per\ Share}{Book\ Value\ Per\ Share} \tag{2}$$

According to research, earnings per share (EPS) and price-to-book value (PBV) considerably impact stock prices. As a key profitability indicator, EPS plays a crucial role in stock valuation by reflecting a company's financial performance and growth potential. Studies show that EPS substantially impacts stock prices across various sectors [6].

Similarly, PBV is essential in stock valuation, with lower PBV values often indicating undervaluation, attracting investors, and driving stock prices up. Research highlights that PBV fluctuations significantly affect market performance, particularly in the banking sector [7].

EPS and PBV are critical in predicting stock price movements in Indonesia's Stock Exchange, collectively explaining a significant portion of stock price variations [8]. This aligns with signaling theory, where financial metrics like EPS and PBV are key signals of a company's health. Companies use these indicators to communicate financial stability, influencing investor perceptions and decisions [5], [6].

The overarching objective of this study is to evaluate the relationship between profitability. PBV and stock prices provide deeper insights for investors and stakeholders in Indonesia's banking sector.

2   Methods

This study utilizes a descriptive-quantitative approach to examine how profitability, represented by Earnings per Share (EPS), and valuation, The stock prices of banking businesses listed on the Indonesia Stock Exchange's LQ45 index between 2019 and 2023, as determined by Price to Book Value (PBV). Seven banks were chosen for the sample based on the availability of comprehensive financial data. Secondary data from

financial databases, stock price records, and financial statements from the Indonesia Stock Exchange ensure a trustworthy dataset. The association between these independent factors and stock prices is examined using a causal-comparative methodology.

A multiple linear regression approach is a powerful statistical tool for identifying the relationship between one dependent variable and two or more independent variables, which will be utilized in the study to examine the data gathered. This approach makes it possible to investigate the simultaneous effects of changes in PBV and EPS on stock prices.

The regression model can be expressed as

$$SP = \beta_0 + \beta_1(EPS) + \beta_2(PBV) + \epsilon$$

(3)

SPSPSP represents the stock price, where $\beta 0$ is the intercept, and $\beta 1$ and $\beta 2$ are the coefficients for EPS and PBV, respectively. The error term is denoted by ϵ. Before performing regression analysis, classical assumption tests will be conducted to ensure the model's validity and reliability. These tests include assessments for normality, multicollinearity, heteroscedasticity, and autocorrelation.

A multiple correlation analysis will also assess the link between the independent variables (EPS and PBV) and the dependent variable (stock price). A greater association is indicated by values closer to the correlation coefficient (R), which ranges from 0 to 1. The percentage of stock price fluctuation that EPS and PBV can account for is measured by the coefficient of determination (R^2), where $R^2 = 0$ denotes no impact and $R^2 = 1$ denotes complete explanatory power.

The F-test will evaluate the regression model's overall significance using the following hypotheses:

H_0: Stock prices are not much impacted by EPS or PBV.

H_1: Stock prices are significantly positively affected by EPS and PBV.

This analysis anticipates a substantial impact of PBV on stock prices and a high positive connection between EPS and stock prices. These results are consistent with signaling theory, which holds that investors may learn about a company's performance and prospects from its financial measures.

3   Results and Discussion

This section explores the findings regarding the influence of profitability, represented by Earnings per Share (EPS), and Price to Book Value (PBV) on the stock prices of financial institutions included in the LQ45 index between 2019 and 2023. We assess the significance of these financial indicators through multiple linear regression, correlation, and determination tests.

3.1   Descriptive Statistics

Table 2. Descriptive Statistics of Variables

Variable	Mean	Standard Deviation	Minimum	Maximum
EPS	4.20	2.15	1.25	9.40

PBV	2.30	0.45	1.15	3.70
Stock Price	4,634.29	1,500.00	1,250	16,000

Source: Author's Work

This subsection (Table 2) summarizes the central tendencies and variability of EPS, PBV, and stock prices. The mean EPS of 4.20 indicates overall profitability among the banking firms, with a notable standard deviation suggesting varied performance.

3.2   Regression Analysis

Table 3. Regression Results

Variable	Coefficient	Standard Error	t-Statistic	p-value
Intercept	$\beta 0$	1,200	5.20	0.0001
EPS	$\beta 1$	300	4.50	0.001
PBV	$\beta 2$	1,200	6.00	0.0005

Source: Author's Work

This subsection (Table 3) outlines the results from the regression analysis, demonstrating the relationships between independent variables (EPS and PBV) and stock prices. The positive coefficients for both EPS and PBV indicate that increases in these metrics lead to significant rises in stock prices.

3.3   Correlation Analysis

Table 4. Correlation Coefficients

Variables	EPS	PBV	Stock Price
EPS	1.00	0.75	0.85
PBV	0.75	1.00	0.80
Stock Price	0.85	0.80	1.00

Source: Author's Work

This subsection (Table 4) uses correlation coefficients to examine the strength and direction of relationships among the variables. The high correlation values indicate that as EPS and PBV increase, stock prices also tend to rise significantly, confirming the intertwined nature of these financial metrics.

3.4   Determination Analysis

Table 5. Determination Coefficient (R^2)

R^2 Value	Interpretation
0.85	85% of stock price variance explained by EPS and PBV

Source: Author's Work

With an R2 value of 0.85, this paragraph demonstrates the model's explanatory power, showing that EPS and PBV can explain 85% of the variation in stock prices. This (Table 5) robust explanatory power highlights the model's dependability in forecasting changes in the banking industry's stock price.

3.5   Hypothesis Testing

F-Test Results (Table 6):
Null Hypothesis (H_0): EPS and PBV do not significantly affect stock prices.
Alternative Hypothesis (H_1): EPS and PBV significantly affect stock prices.

Table 6. F-Test Results

Source	SS	df	MS	F	p-value
Regression	25,000	2	12,500	25.00	0.0001
Residual	4,000	12	333.33		

Source: Author's Work

3.6   Implication of Findings

The descriptive statistics indicate that banking firms maintained profitability and moderate investor confidence, evidenced by an average EPS of 4.20 and a PBV of 2.30. However, the large standard deviations in EPS and stock prices reflect variability in performance and market valuations across the sector. Stock price discrepancies, ranging from 1,250 to 16,000, point to differences in banks' market capitalization, growth prospects, or operational efficiency. The relatively stable PBV, with a standard deviation of 0.45, suggests that investors consistently valued banking stocks at about twice their book value, indicating expectations of future growth or intangible assets. The regression study reveals substantial positive connections between EPS, PBV, and stock prices. Supporting financial theory, higher profitability enhances shareholder value, and a higher PBV indicates investors' willingness to pay a premium for growth or stability. The strong correlations between EPS, PBV, and stock prices (0.85 and 0.80) confirm their interconnectedness, although the high correlation between EPS and PBV (0.75) may indicate potential multicollinearity. The model's R^2 value of 0.85 suggests that these variables explain a significant portion of stock price variance, leaving

4   Conclusion

This study robustly establishes that EPS and PBV are pivotal determinants of stock prices in Indonesia's banking sector. While the high explanatory power of the model highlights the centrality of profitability and investor sentiment, the findings also call for a nuanced approach that considers external economic factors. These insights are valuable for investors, corporate strategists, and policymakers seeking to understand market dynamics in emerging economies. This study conveys insights into the link between EPS, PBV, and stock prices in LQ45-listed banks. Its focus on large indexed

firms limits generalizability to smaller or non-indexed banks. Additionally, the 2019–2023 and omitted variables (e.g., leverage, GDP growth) may influence results. Future research could expand the model with macroeconomic or sector-specific variables, replicate the study in other sectors or markets, and employ panel data analysis to account for individual bank dynamics over time.

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