Stock Price Determinants in the Automotive Industry: A Fundamental Analysis from 2019 to 2023

Mufidah[1], Ira Febrianti[2], Sudirman[3]
[1-3]Management Study Program, Faculty of Economics, Batanghari University, Jambi,Indonesia
*Corresponding author, e-mail: mufidah@unbari.ac.id

Sections Info	ABSTRACT
Keywords: *Stock Price* *Fundamentals* *Automotive* *Profitability* *Economy*	***Objective:*** *This study examines the effect of key financial ratios, namely the Current Ratio, Total Asset Turnover, Return on Equity, Debt to Asset Ratio, and Earnings per Share on stock prices in Indonesia's automotive sector during the economic transformation period from 2019 to 2023. Based on secondary data from 12 listed companies and analyzed using multiple linear regression with SPSS version 25, the results indicate that all variables simultaneously influence stock prices, although only Earnings per Share has a statistically significant partial effect. The original contribution of this study lies in its focus on a sector experiencing structural shifts due to the COVID-19 pandemic and the accelerating transition toward electric vehicles, an area that remains rarely explored empirically in the Indonesian context.*

INTRODUCTION

The Indonesian capital market continues to evolve as a strategic platform for long-term financing and investment, serving as a barometer for national economic performance. Stock prices function as a key indicator reflecting investors' expectations of corporate financial health. One of the pivotal sectors contributing to Indonesia's GDP is the automotive industry, which encountered significant challenges from 2019 to 2023 due to the COVID-19 pandemic, global supply chain disruptions, and a rapid transition toward electric vehicles (EVs).

The pandemic led to a sharp contraction in automotive production and sales in 2020. However, by 2021–2023, the industry began to recover, as seen in increasing domestic vehicle sales reported by Gaikindo and the improving stock performance of companies such as PT Astra International Tbk (ASII). This recovery highlights that, despite external volatility, investors continue to use financial performance as a key metric in valuing stock prices and assessing company fundamentals.

To investigate the drivers of stock prices, this study applies fundamental analysis, an approach that evaluates a firm's intrinsic value through its financial statements, macroeconomic conditions, and industry context. According to Reilly and Brown (2012), fundamental analysis assumes that the true value of a security will be reflected in its market price over time, once all relevant financial data are accounted for. Furthermore, Brigham and Houston (2014) explain that financial ratios such as those measuring profitability, liquidity, solvency, and efficiency are vital for forecasting performance and evaluating investment risk.

This research employs five financial ratios as independent variables: Return on Equity (ROE) and Earnings per Share (EPS) to represent profitability; Current Ratio (CR) for liquidity; Debt to Asset Ratio (DAR) for capital structure; and Total Asset Turnover (TATO) for efficiency. EPS is regarded as a primary indicator of profitability and future cash flow potential, while TATO reflects the effectiveness of asset utilization. ROE shows a company's ability to generate profit from shareholders' equity, CR indicates its capacity to meet short-term liabilities, and DAR measures reliance on external debt.

While prior studies have explored the relationship between financial ratios and stock prices, most have focused on general sectors such as banking or property, with limited attention to the automotive industry—particularly during the volatile period of 2019–2023. This gap is significant given the automotive sector's exposure to the COVID-19 pandemic, supply chain disruptions, and the shift toward electric vehicles.

This study offers novelty by specifically examining the Indonesian automotive sector and analyzing five key financial ratios (CR, TATO, ROE, DAR, EPS) simultaneously over a period marked by economic turbulence and recovery. By incorporating post-pandemic conditions and industry transformation, the research contributes both theoretically and practically to understanding how fundamental indicators influence stock price movements in a strategically vital sector.

Table 1
Current Ratio (CR), Total Asset Turn Over (TATO), Return on Equity (ROE), Debt to Asset Ratio (DAR), Earning Per Share (EPS) and Stock Price of Automotive Industry Companies (2019–2023)

Variable	Year					Average
	2019	2020	2021	2022	2023	
CR (%)	319,36	285,23	223,08	212,11	247,42	257,44
TATO (X)	90,47	70,20	87,46	100,71	100,99	89,97
ROE (%)	7,12	-8,21	15,27	10,35	13,27	7,56
DAR (%)	39,62	39,73	42,72	42,03	39,19	40,66
EPS (IDR)	108,05	37,65	85,21	139,17	188,60	111,74
Stock Price (IDR)	2.368	1.741	2.417	1.861	1.866	2.051

Table 1 presents the average financial ratios of automotive sector companies listed on the Indonesia Stock Exchange from 2019 to 2023. The data reflect fluctuations in financial performance and stock valuation across the five-year period. The average Current Ratio (CR) was 257.44%, indicating high short-term liquidity. The Total Asset Turnover (TATO) averaged 89.97%, showing asset utilization efficiency, which increased post-pandemic. ROE experienced significant variation, with a negative value in 2020 due to the COVID-19 crisis, followed by recovery in the following years. DAR remained relatively stable, reflecting consistent leverage levels. EPS and stock prices show upward trends after 2020, suggesting improved investor confidence and earnings performance. These indicators provide insight into how financial fundamentals evolved during a period of economic uncertainty and industrial transformation

Recent studies indicate that the relationship between financial ratios and stock prices is not consistently observed across sectors or time periods. Prasetya and Rahmawati (2020) and Andini and Suaryana (2021) found that only EPS consistently had a significant impact, while CR, ROE, and DER often showed no significant effect. Similarly, Putri and Suryani (2022) reported that ratios such as ROE and TATO were not always dominant factors in influencing stock prices in the consumer goods sector. In China, Zhang et al. (2020) examined listed firms and concluded that fundamental indicators—including ROE, EPS, and CR—remain relevant in predicting stock prices, especially in industries where investors are highly responsive to earnings information.

In the Indian context, Gupta and Srivastava (2021) found that only profitability ratios such as ROE and EPS consistently influenced stock prices, while liquidity and leverage ratios produced mixed results. Based on these findings, this study is important in re-examining the influence of financial ratios on stock prices in Indonesia's automotive sector during the economically and structurally dynamic period of 2019–2023.

RESEARCH METHOD
Population and Sample
The data used in this study are secondary data. The data collection method applied is documentation, which involves obtaining information by reviewing existing records and documents. The data were sourced from the financial statements of all companies classified under the automotive industry, consisting of 12 firms, for the period from 2019 to 2023. These financial statements were published by the Indonesia Stock Exchange (IDX) through its official website (www.idx.co.id), as well as through the annual reports available on each company's official website.

Table 2
Automotive Companies Listed on IDX (2019–2023)

No	Stock Code	Company Name	IPO
1	ASII	PT Astra international, Tbk	04 April 1990
2	AUTO	PT Astra Otopart, Tbk	15 Juni 1998
3	MPMX	PT Mitra Pinasthika Mustika, Tbk	29 Mei 2013
4	IMAS	PT Indomobil Sukses International, Tbk	15 November 1993
5	GJTL	PT Gajah Tunggal, Tbk	08 Mei 1990
6	GDYR	PT Goodyear Indonesia, Tbk	22 Desember 1980
7	INDS	PT Indospring, Tbk	10 Agustus 1990
8	LPIN	PTMulti Prima sejahtera	05 Februari 1990
9	BRAM	PT Indo Kordsa, Tbk	05 September 1990
10	BOLT	PT Garuda Metalindo, Tbl	06 Juli 2015
11	CORS	PT Bintraco Dharma, Tbk	04 April 2017
12	SMSM	PT Selamat Sempurna, Tbk	09 September 1996

Sumber: IDX.co.id

Data Analysis Method
Multiple Linear Regression
This study uses a quantitative data analysis method, processed using the Statistical Package for the Social Sciences (SPSS) version 25. The analytical procedures include descriptive statistics, classical assumption tests, and hypothesis testing. Hypothesis testing is conducted using multiple linear regression analysis. The multiple linear regression model used in this study is as follows:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Keterangan:
Y = Stock Price

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X_1 = Current Ratio (CR)
X_2 = Total Asset Turn Over (TATO)
X_3 = Return on Asset (ROE)
X_4 = Debt Asset Ratio (DAR)
X_5 = Earnings per Share (EPS)
A = Constant
e = error term

Due to differences in measurement units among the variables—where Current Ratio, Return on Equity, and Debt to Asset Ratio are expressed as percentages, while Earnings per Share and stock prices are in monetary units (Rupiah)—the regression model was transformed using logarithms to improve consistency and comparability. The transformed model is as follows (Sugiyono, 2010:54):

$LogY = a + b1 + \log X1 + b2 \log X2 + b3 \log X3 + b1 X4 + e$

Classical Assumption Tests

To ensure the validity of the multiple linear regression model, several classical assumption tests are applied, as outlined by Ghozali (2018) in *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25*:

1. Normality Test

This test is used to assess whether the residuals of the regression model are normally distributed. The P–P Plot method is commonly used. If the data points follow the diagonal line, the distribution is considered normal.

2. Multicollinearity Test

This test examines whether there is a high correlation between independent variables. It is evaluated using the Variance Inflation Factor (VIF) and tolerance values. A VIF > 10 or tolerance < 0.10 indicates multicollinearity.

3. Heteroscedasticity Test

This test identifies inequality of residual variance across observations using the scatterplot method. If the points are randomly scattered above and below zero without a clear pattern, heteroscedasticity is not present.

4. Autocorrelation Test

This test checks whether residuals in period t are correlated with residuals in period t−1. The Durbin–Watson (DW) test is used. A DW value between −2 and +2 suggests no autocorrelation.

Hypothesis Test
F-Test (Simultaneous Test)

The F-test examines whether the independent variables (Current Ratio, Total Asset Turnover, Return on Equity, Debt to Asset Ratio, and Earnings per Share) have a simultaneous significant effect on stock prices in automotive companies during 2019–2023 (Priyatno, 2013:141).

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- H_0: All $\beta = 0 \rightarrow$ No simultaneous effect
- H_1: At least one $\beta \neq 0 \rightarrow$ Significant simultaneous effect
- Decision   rule:
  If   Fcount   >   Ftable   →   reject H_0
  If Fcount < Ftable → accept H_0
-

t-Test (Partial Test)

The t-test assesses the partial effect of each independent variable on stock price (Priyatno, 2013:137).

- H_0: $\beta = 0 \rightarrow$ No significant partial effect
- H_1: $\beta \neq 0 \rightarrow$ Significant partial effect
- Decision   rule:
  If   tcount   >   ttable   →   reject H_0
  If tcount < ttable → accept H_0

Coefficient of Determination (R²)

R^2 measures how much variation in stock price is explained by all independent variables simultaneously (Priyatno, 2013:143). Adjusted R^2 is used due to the presence of multiple predictors.

$KD = R^2 \times 100\%$

Variable Measurement

The variables used in this study consist of independent variables, namely the Current Ratio, Total Asset Turnover, Debt to Asset Ratio, Return on Equity, and Earnings per Share. Table 3 below presents the operational definition and measurement of each variable.

Table 2
Operational Variables

Variable	Definition	Formulas	Scale
Current ratio (X_1)	The Current Ratio reflects a company's ability to meet its short-term obligations using its current assets. It shows whether the company has enough liquid assets to cover its current liabilities due in the near term. Munawir, S. (2014)	CR=Current AssetCurrent Liability	Ratio
Total Aset Turnover (X_2)	This ratio measures the efficiency with which a company uses all of its assets to generate sales revenue. A higher ratio indicates better utilization of the company's total assets in producing (Fahmi, 2015)	TATO=SalesTotal Asset	Ratio
Return on Equity (X_3)	Return on Equity evaluates the profitability of a company by revealing how much profit a firm generates with the money shareholders have invested. It is a key	ROE=Net Incomeequity	Ratio

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	indicator for investors to assess the financial return of their equity capital. (Hery, 2017)		
Debt to Asset Ratio (X_4)	This ratio compares total liabilities to total assets and indicates the proportion of a company's assets that are financed by debt. It helps assess the level of financial leverage used in managing the company's assets. (Kasmir, 2018)	DER=Total debtTotal Asset	Ratio
Earnings per share (X_4)	Earnings per Share is a profitability ratio that measures the net income available to each outstanding share of common stock. It indicates the company's ability to generate profits for its shareholders (Harahap, 2015)	EPS=Net IncomeOutstanding Stock	Ratio
Harga Saham (Y)	Stock price represents the market's valuation of a company's equity, reflecting investor expectations regarding the firm's future performance, profitability, and risk. It fluctuates based on company performance, market conditions, and investor sentiment. (Tandelilin, 2010)	Closing Price	Ratio

RESULTS AND DISCUSSION
RESULT

To examine the influence of Current Ratio (CR), Total Asset Turnover (TATO), Return on Equity (ROE), Debt to Asset Ratio (DAR), and Earnings per Share (EPS) on stock prices in Indonesia's automotive sector (2019–2023), multiple linear regression and classical assumption tests were conducted.

Classical Assumption Tests

- Normality Test: The Kolmogorov–Smirnov test yielded a significance value of 0.354 (>0.05), indicating that residuals are normally distributed.
- Multicollinearity Test: All independent variables showed VIF values < 10 and tolerance values > 0.10, confirming no multicollinearity issues.
- Heteroscedasticity Test: Scatterplot analysis showed no clear pattern, indicating homoscedastic residuals.
- Autocorrelation Test: The Durbin–Watson value of 0.937 falls between −2 and +2, suggesting no autocorrelation in the regression model.

Multiple Linear Regression Analysis

In this study, a panel data multiple linear regression model was constructed to examine the influence of Current Ratio (CR), Total Asset Turnover (TATO), Return on Equity (ROE), Debt to Asset Ratio (DAR), and Earnings per Share (EPS) as independent variables on stock price as the dependent variable. The results of the multiple regression analysis are presented in Table 3 below:

Table 3
Multiple Linear Regression Results
Coefficients[a]

Model	Unstandardized Coefficients		Standardize d Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Toleranc e	VIF
Constant	2423.362	818.710		2.960	.005		
CR	-1.708	.892	-.265	-1.915	.062	.481	2.081
TATO	-10.052	5.113	-.217	-1.966	.056	.755	1.325
ROE	13.606	10.402	.160	1.308	.198	.616	1.624
DAR	-15.526	7.822	-.295	-1.985	.053	.417	2.396
EPS	5.871	.903	.660	6.498	.000	.891	1.122

a. Dependent Variable: Stock Price

Based on the results of the multiple linear regression analysis, the simultaneous F-test indicates that the independent variables Current Ratio (CR), Total Asset Turnover (TATO), Return on Equity (ROE), Debt to Asset Ratio (DAR), and Earnings per Share (EPS) collectively have a significant effect on stock prices in Indonesia's automotive industry during the 2019–2023 period. This is evidenced by the calculated F-value of 12.927, which is greater than the F-table value of 2.36 at a 5 percent significance level ($\alpha = 0.05$), along with a significance value of 0.000, which is less than 0.05. According to Ghozali (2016), when the F-statistic exceeds the F-table and the significance level is below 0.05, the regression model is considered statistically significant, indicating that all independent variables simultaneously influence the dependent variable.

However, the partial t-test provides a more nuanced insight. The variables CR, TATO, ROE, and DAR do not exhibit significant individual effects on stock prices, with respective t-values of 1.915, 1.966, 1.308, and 1.985 all of which fall below the t-table value of 1.99773. This suggests that, individually, these four variables do not have a statistically significant impact at the 95 percent confidence level (Gujarati & Porter, 2009). Although these variables are important indicators of a firm's financial performance, their influence on stock prices may be overshadowed by external factors such as market sentiment or macroeconomic conditions.

In contrast, Earnings per Share (EPS) demonstrates a strong and statistically significant impact on stock prices, with a t-value of 6.498 and a significance level of 0.000, well below the 0.05 threshold. This finding indicates that investors place considerable weight on EPS as a key indicator of profitability and potential returns. This

result is consistent with prior studies emphasizing the importance of earnings information in stock valuation (Brigham & Houston, 2010).

In conclusion, while the regression model confirms that the five independent variables simultaneously affect stock prices, only Earnings per Share (EPS) has a significant partial effect. This underscores the relative importance of profitability over liquidity, efficiency, and leverage in shaping investor perceptions within the automotive sector.

THEORETICAL AND PRACTICAL CONTRIBUTION

This study contributes theoretically by strengthening the relevance of earnings-based indicators, particularly Earnings per Share (EPS), as a key determinant of stock prices in the context of Indonesia's automotive industry during a period marked by economic transformation, digitalization, and global supply chain disruptions (2019–2023). While traditional financial ratios such as liquidity (CR), efficiency (TATO), leverage (DAR), and profitability (ROE) are often used in equity valuation, only EPS demonstrated a statistically significant impact on stock prices in this study. This reinforces the signaling theory and the informativeness of earnings hypothesis, which suggest that net earnings per share serve as a credible signal to investors regarding future cash flows and firm value.

Practically, the findings offer significant implications for multiple stakeholders. For investors and financial analysts, EPS serves as a reliable indicator for stock selection and portfolio strategy, especially under conditions of market volatility and post-pandemic recovery where earnings transparency becomes crucial. For corporate managers, the results highlight the strategic importance of improving and communicating earnings performance as a way to maintain investor confidence and market capitalization. Furthermore, policy-makers and regulators may use this insight to design better disclosure requirements emphasizing profitability indicators, ensuring that financial reports truly reflect corporate fundamentals amid structural shifts in the automotive sector such as electrification, environmental regulation, and shifting consumer preferences.

The findings also reflect the broader economic landscape during 2019–2023, including the impact of COVID-19 on consumer demand, the global chip shortage, and the acceleration of electric vehicle (EV) adoption in Indonesia. These macroeconomic shocks may have diluted the immediate impact of liquidity, leverage, and efficiency metrics on stock prices, while highlighting investor preference for earnings certainty as reflected through EPS.

CONCLUSION

This study examined the impact of five fundamental financial indicators—Current Ratio (CR), Total Asset Turnover (TATO), Return on Equity (ROE), Debt to Asset Ratio (DAR), and Earnings per Share (EPS)—on stock prices of automotive companies listed on the Indonesia Stock Exchange from 2019 to 2023. Using multiple linear regression analysis, the results show that these variables simultaneously have a statistically significant effect on stock prices. However, only EPS demonstrated a

significant partial effect, indicating that profitability is the most influential factor in shaping investor behavior and market valuation during the observed period.

These findings suggest that while overall financial fundamentals matter, earnings-related indicators like EPS play a dominant role in investors' stock pricing decisions. Therefore, companies should prioritize earnings quality and profitability to enhance shareholder value, especially amid market volatility and industry transitions.

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