

The Effect of Debt to Equity Ratio, Net Profit Margin, and Return on Equity on Price Earning Ratio in Agribusiness Companies Listed on the Indonesia Stock Exchange for the 2021-2025 Period

Niken Afifah Putriansyah¹, Ika Sari Tondang¹, Taufik Setyadi¹

¹Program Studi Agribisnis, Fakultas Pertanian, Universitas Pembangunan Nasional “Veteran” Jawa Timur, Indonesia

*Corresponding Author: Ika Sari Tondang

Email: ika.sari.agribis@upnjatim.ac.id

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Abstract

This study examines the influence of the Debt-to-Equity Ratio (DER), Net Profit Margin (NPM), and Return on Equity (ROE) on the Price-to-Earnings Ratio (PER) of agribusiness companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2025 period. The agribusiness sector plays a strategic role in Indonesia's economy, yet its financial performance is characterized by commodity price volatility, climate uncertainty, and biological production cycles that may affect investors' valuation decisions. A quantitative research design was employed using secondary data obtained from the annual financial statements of fifteen agribusiness companies selected through purposive sampling, resulting in 75 firm-year observations. Panel data regression analysis was conducted using Stata 19, with the appropriate estimation model determined through the Chow, Hausman, and Lagrange Multiplier tests. The findings reveal that the Debt-to-Equity Ratio has no significant effect on the Price-to-Earnings Ratio, indicating that capital structure is not the primary consideration in investors' valuation of agribusiness firms. In contrast, the Net Profit Margin has a positive and significant effect on the Price-to-Earnings Ratio, suggesting that stronger operational profitability enhances investor confidence and market valuation. Meanwhile, Return on Equity exhibits a significant negative effect on the Price-to-Earnings Ratio, implying that investors evaluate not only current profitability but also earnings sustainability and future growth prospects. Simultaneously, DER, NPM, and ROE significantly influence the Price-to-Earnings Ratio. These findings contribute to the corporate finance literature by demonstrating that firm valuation in the agribusiness sector is driven more by profitability and growth expectations than by capital structure alone, highlighting the importance of considering sector-specific characteristics when evaluating investment decisions.

Introduction

Compared to other sectors of economic development, the agricultural sector in Indonesia has demonstrated a relatively stable and significant upward trend over the past several years (Khairiyakh & Mulyo, 2015; Siregar et al., 2024; Junaidi & Jannah, 2020; Ngadi et al., 2024). According to the Statistics Indonesia (BPS) (2025), the agricultural production index increased from 180.32 in 2020 to 194.02 in 2024, indicating consistent improvements in national agricultural productivity. This performance confirms that agriculture remains one of the strategic pillars supporting Indonesia's economic development by contributing to employment opportunities, food security, export earnings, and regional economic growth. The continued expansion of agribusiness activities also requires substantial financial resources to support production capacity, technological innovation, and business expansion (Adenle et al., 2017; Tomashuk et al., 2025; Wu et al., 2022; Ikuemonisan et al., 2024). Besides government funding

and bank financing, the capital market has become an increasingly important source of long-term financing for companies seeking sustainable growth (Juliati, 2016).

The development of the Indonesian capital market has significantly expanded investment opportunities for both institutional and individual investors (Amanda et al., 2024; Togatorop et al., 2026; Guild, 2020). Since the continuous modernization of the Indonesia Stock Exchange (IDX), investing in publicly listed companies has become increasingly accessible to the general public (Destina, 2022). This trend is reflected in the 6 percent increase in capital market investors between January and March 2025, with 70.39 percent of domestic investors concentrated on the island of Java. Furthermore, PT KSEI reported that, as of April 23, 2023, approximately 58.00 percent of individual investors were younger than 30 years old, collectively holding investment assets worth IDR 54.65 trillion, whereas investors aged between 31 and 60 accounted for only 2–22 percent of total investors. These figures indicate that younger investors now dominate participation in the Indonesian capital market, reflecting the growing attractiveness of equity investment among the younger generation.

Despite this encouraging growth, investing in the stock market remains associated with considerable uncertainty, particularly for novice investors who often possess limited experience in evaluating corporate performance (Ahmad, 2024; Haidari, 2023). Investment decisions based solely on speculation or incomplete information may expose investors to unnecessary financial risks and potential losses. Consequently, investors increasingly rely on objective financial information to evaluate company performance before making investment decisions (Hidayat & Pamungkas, 2022). However, the availability of accounting information alone is insufficient if investors cannot properly interpret its economic implications. This perspective is consistent with George J. Staubus's Decision Usefulness Theory, which argues that accounting information is valuable only when it assists users in making rational and effective economic decisions (Sudarma & Wulandari, 2025). Therefore, financial statement information must not only be available but also relevant, reliable, and capable of supporting investment decision-making.

One of the most widely used approaches for evaluating company performance is fundamental analysis, which focuses on examining financial statements to estimate a company's intrinsic value and future growth potential. Through financial ratio analysis, investors can assess profitability, solvency, efficiency, and financial stability before purchasing shares. Among the various financial indicators available, this study focuses on three ratios frequently employed in investment analysis. The Debt-to-Equity Ratio (DER) measures the proportion of debt financing relative to shareholders' equity and reflects the company's financial leverage and solvency (Atidhira & Yustina, 2017; Supriono, 2022; Lawal & Iliyasu, 2024; Mursalini et al., 2025). The Net Profit Margin (NPM) evaluates the firm's ability to convert sales into net income, thereby representing operational profitability (Sujarweni, 2019). Meanwhile, Return on Equity (ROE) measures the company's effectiveness in generating returns from shareholders' equity, making it an important indicator of managerial efficiency and shareholder value creation (Mukrimatin & Khabibah, 2021). These financial indicators are expected to influence investors' perceptions of company value, which is commonly reflected in the Price-to-Earnings Ratio (PER).

Unlike many manufacturing or service industries, agribusiness companies operate under unique business conditions characterized by commodity price volatility, climate uncertainty, biological production cycles, changing export policies, and fluctuations in global agricultural demand. These sector-specific characteristics generate relatively high earnings volatility and create additional uncertainty regarding future business performance (Arifin & Biba, 2017).

Consequently, investors may evaluate the financial performance of agribusiness companies differently from firms operating in more stable industries. For instance, temporary increases in profitability may simply reflect favorable commodity prices rather than sustainable improvements in operational efficiency. Likewise, relatively high debt levels may not necessarily indicate financial distress because debt is often used to finance long-term plantation development, infrastructure investment, or production expansion (Ida & Sitanggang, 2022). Therefore, understanding how financial performance influences market valuation within the agribusiness sector requires sector-specific investigation rather than relying solely on evidence obtained from other industries.

Previous empirical studies examining the relationship between financial performance and the Price-to-Earnings Ratio (PER) have produced inconsistent findings. Several studies reported that profitability indicators such as Return on Equity (ROE) and Net Profit Margin (NPM) positively influence PER because firms with stronger profitability generally receive higher market valuations due to investors' optimistic expectations regarding future earnings. Conversely, other studies identified insignificant or even negative relationships between profitability and PER, suggesting that investors may also consider other factors such as growth opportunities, business risk, and earnings sustainability. Similarly, the influence of the Debt-to-Equity Ratio (DER) has varied considerably across industries depending on firms' financing strategies and investors' perceptions of financial risk. These inconsistent findings indicate that the determinants of company valuation cannot be generalized across sectors and emphasize the importance of investigating financial ratios within industry-specific contexts.

Accordingly, this study addresses this research gap by focusing specifically on agribusiness companies listed on the Indonesia Stock Exchange during the 2021–2025 period. The novelty of this research lies not only in its sectoral focus but also in its attempt to examine whether the relationships between DER, NPM, ROE, and PER remain consistent within the distinctive characteristics of the agribusiness industry. By incorporating sector-specific characteristics into the analysis, this study contributes to the corporate valuation literature by providing empirical evidence regarding how investors interpret financial performance in commodity-based industries that experience relatively high business uncertainty. The findings are expected to enrich the literature on investment decision-making while offering practical insights for investors, corporate managers, and policymakers regarding the financial factors influencing company valuation in Indonesia's agribusiness sector. Therefore, this study aims to examine the effect of the Debt-to-Equity Ratio (DER), Net Profit Margin (NPM), and Return on Equity (ROE) on the Price-to-Earnings Ratio (PER) of agribusiness companies listed on the Indonesia Stock Exchange during the 2021–2025 period.

Method

Research Design

This study employed a quantitative research approach using panel data analysis to examine the effect of financial performance on firm valuation in agribusiness companies listed on the Indonesia Stock Exchange (IDX). A quantitative design was considered appropriate because the study aimed to test the causal relationships among measurable financial variables using statistical analysis. Panel data combine cross-sectional and time-series observations, allowing researchers to capture variations both across companies and over time. Compared with purely cross-sectional or time-series analyses, panel data provide more efficient parameter estimates, reduce omitted-variable bias, and improve the ability to detect dynamic relationships among variables. The observation period covered five consecutive fiscal years, from 2021 to 2025,

enabling the study to evaluate changes in financial performance and market valuation under varying economic conditions.

Data Source and Sample Selection

This study relied exclusively on secondary data obtained from annual financial reports of agribusiness companies officially published by the Indonesia Stock Exchange (IDX). The financial statements were accessed through the IDX database and corporate annual reports to ensure the reliability and consistency of the data. Secondary data were selected because they provide standardized financial information that has been publicly disclosed and audited, thereby reducing measurement bias and enhancing research reliability.

The study population consisted of all agribusiness companies listed on the Indonesia Stock Exchange during the 2021–2025 period. The research sample was determined using purposive sampling to ensure that only firms meeting the research objectives were included in the analysis. The sample selection criteria were as follows: (1) agribusiness companies continuously listed on the IDX during the observation period; (2) companies that consistently published complete annual financial statements from 2021 to 2025; and (3) companies that had completed their Initial Public Offering (IPO) at least five years before the observation period to ensure sufficient market maturity and financial reporting consistency.

Based on these criteria, fifteen agribusiness companies were selected, producing a balanced panel dataset consisting of 75 firm-year observations. The sample size was considered sufficient for panel data estimation because it combines fifteen cross-sectional units observed over five years, providing adequate observations for parameter estimation, model selection, and diagnostic testing. Furthermore, the balanced panel structure improves estimation efficiency and facilitates comparisons across firms and time.

Data Collection Technique

The study employed documentation and literature review as the primary data collection techniques. Documentation involved collecting annual financial reports, audited financial statements, and supporting corporate information obtained from the Indonesia Stock Exchange. These financial reports served as the primary source for calculating the research variables.

The literature review was conducted to establish the theoretical foundation and conceptual framework of the study. Relevant books, peer-reviewed journal articles, previous empirical studies, and official publications were examined to identify theoretical arguments supporting the relationships among Debt-to-Equity Ratio (DER), Net Profit Margin (NPM), Return on Equity (ROE), and Price-to-Earnings Ratio (PER). The combination of documentary evidence and literature review ensured that the research was grounded in both empirical observations and established financial theories.

Research Variables and Operational Definitions

This study investigated the influence of three independent variables on one dependent variable. The dependent variable was the Price-to-Earnings Ratio (PER), which represents the market valuation of a company relative to its earnings. PER reflects investors' expectations regarding future earnings growth and is widely used as an indicator of firm value in capital market analysis.

The independent variables consisted of the Debt-to-Equity Ratio (DER), Net Profit Margin (NPM), and Return on Equity (ROE). DER measures the proportion of total liabilities relative to shareholders' equity and represents the company's capital structure and financial leverage. A higher DER generally indicates greater dependence on external financing and potentially

higher financial risk. NPM measures the percentage of net income generated from total sales and reflects the company's operational efficiency in converting revenue into profit. Meanwhile, ROE measures the effectiveness of management in generating profits from shareholders' invested capital and is commonly interpreted as an indicator of shareholder wealth creation.

The selection of these variables was based on both theoretical and empirical considerations. They are among the most frequently employed indicators in fundamental analysis and are expected to influence investors' assessments of firm value through different financial dimensions, namely leverage, profitability, and managerial efficiency.

Data Analysis Procedure

Data processing and statistical analysis were conducted using Stata version 19. The analysis began with descriptive statistics to summarize the characteristics and distribution of each research variable, including the mean, standard deviation, minimum value, and maximum value. The second stage involved selecting the most appropriate panel data estimation model. Three alternative estimation models were considered: the Common Effects Model (CEM), the Fixed Effects Model (FEM), and the Random Effects Model (REM). Model selection was conducted sequentially using the Chow Test, Hausman Test, and Breusch–Pagan Lagrange Multiplier (LM) Test. The Chow Test was first applied to compare the Common Effects Model and Fixed Effects Model. Subsequently, the Hausman Test determined whether the Fixed Effects Model or Random Effects Model was more appropriate. Finally, the Breusch–Pagan LM Test compared the Common Effects Model and Random Effects Model to identify the most efficient estimator.

After determining the optimal panel regression model, several diagnostic tests were conducted to evaluate whether the model satisfied the underlying regression assumptions. These included multicollinearity, heteroscedasticity, autocorrelation, and residual normality tests. Although panel data estimation primarily requires the absence of multicollinearity and heteroscedasticity, all diagnostic tests were reported to provide a comprehensive assessment of model adequacy. Residual normality was evaluated using the Jarque–Bera test. If residual normality was violated, the results remained acceptable based on the Central Limit Theorem proposed by Gujarati and Porter 2009, which states that parameter estimation approaches normality when the sample size exceeds thirty observations. When necessary, robust standard errors were considered to address violations of regression assumptions and improve estimation reliability.

Hypothesis Testing

Following model estimation, hypothesis testing was conducted to examine the influence of the independent variables on the dependent variable. Individual effects were evaluated using the t-test, while the joint effect of all independent variables was examined using the Wald test (F-test equivalent for panel regression). Statistical significance was assessed at the 5% significance level ($\alpha = 0.05$).

The explanatory power of the regression model was evaluated using the coefficient of determination (R^2). The R^2 value indicates the proportion of variation in the Price-to-Earnings Ratio that can be explained by the selected financial ratios. However, it is recognized that company valuation is influenced by numerous financial, macroeconomic, and market-related factors beyond the scope of this study. Therefore, the coefficient of determination should be interpreted solely as the explanatory contribution of the variables included in the proposed model rather than a comprehensive representation of all determinants of firm value.

Empirical Model Specification

The relationship between financial performance and firm valuation was estimated using the following panel data regression model:

where represents the Price-to-Earnings Ratio of company i in year t ; is the intercept; , , and denote the regression coefficients of Debt-to-Equity Ratio (DER), Net Profit Margin (NPM), and Return on Equity (ROE), respectively; refers to the cross-sectional unit (company); denotes the observation year; and represents the stochastic error term. The estimated coefficients indicate the direction and magnitude of the effect of each financial ratio on the market valuation of agribusiness companies.

Result and Discussion

Descriptive Statistics

Descriptive statistics are used to illustrate the characteristics of research data through data processing and calculations, including minimum, maximum, mean, and SD, to provide an empirical description of the variables studied.

The results are:

Table 1. Descriptive Statistics Results

Variable	Obs	Mean	Std. Dev.	Min	Max
PER	75	9.513867	11.87388	-21.74	67.49
DER	75	1.161333	1.930909	-2.66	11.37
NPM	75	0.0333333	0.2369704	-1.13	0.34
ROE	75	0.0953333	0.2474865	-1.56	0.92

(Source: Data Processed, 2026)

Based on the descriptive statistics, this study analyzed 75 firm-year observations of agribusiness companies listed on the Indonesia Stock Exchange during the 2021–2025 period. The descriptive analysis provides an overview of the distribution and characteristics of the research variables, namely the Price-to-Earnings Ratio (PER), Debt-to-Equity Ratio (DER), Net Profit Margin (NPM), and Return on Equity (ROE). The PER variable has a mean value of 9.5139 with a standard deviation of 11.8739, indicating considerable variation in market valuation among the sampled companies. Similarly, DER, NPM, and ROE exhibit relatively wide ranges of values, with mean values of 1.1613, 0.0333, and 0.0953, respectively, suggesting substantial differences in capital structure, profitability, and shareholders' returns across firms. The presence of negative minimum values for PER, NPM, and ROE indicates that several companies experienced financial losses or weak operating performance during the observation period, whereas the relatively high maximum values reflect firms with strong financial performance and favorable market valuations. Overall, the descriptive statistics indicate considerable heterogeneity among the sampled agribusiness companies, providing sufficient variability for subsequent panel data regression analysis.

Panel Data Model Selection

Chow Test

The Chow test yielded a Prob value > F of 0.0008 and an F value of 3.28. These findings indicate that the probability values are less than the 5% significance threshold. Therefore, the author can reject the null hypothesis and choose FEM over CEM.

Hausman Test

The Hausman test yielded a chi-square value of 5.70 and a probability value $> \chi^2$ of 0.1271. This finding shows that the probability value exceeds the 5% significance threshold, so we cannot reject the null hypothesis and choose REM over FEM as the better estimation model.

Lagrange Multiplier Test

Table 2. Lagrange Multiplier Test Results

Breusch and Pagan Lagrangian multiplier test for random effects		
Per [code, t] = xb + u[code] + e [code, t]		
Estimated results:		
	Var	SD = sqrt(var)
Per	140.9889	11.87388
e	85.03368	9.221371
u	15.84982	3.981184
Test: var(u) = 0		
	Chibar2(01) =	4.34
	Prob > chibar2 =	0.0186

(Source: Processed data, 2026)

The Breusch-Pagan LM test yielded a chi-square value (0.1) of 4.34 and a p-value $> \chi^2$ value of 0.0186. Based on these findings, the null hypothesis is rejected, and REM is declared a better estimation model than CEM. This is because the probability value is less than the 5% significance threshold.

Normality Test

Table 3. Normality Test Results

Jarque-Bera normality test	433.8 Chi(2) $6.5e^{-95}$
Jarque-Bera test for Ho	Normality: (resid)

(Source: Processed data, 2026)

The Jarque–Bera (JB) normality test produced a test statistic of 433.8 with a p-value of 6.5×10^{-95} , which is below the 5% significance level. Therefore, the null hypothesis of normally distributed residuals is rejected, indicating that the residuals are not normally distributed. However, this result does not invalidate the panel regression analysis. As noted by Basuki (2019), residual normality is not a fundamental requirement for obtaining the Best Linear Unbiased Estimator (BLUE) in panel data regression. Moreover, according to the Central Limit Theorem (CLT) proposed by Gujarati and Porter 2009, parameter estimates can still be considered reliable when the sample size is sufficiently large (generally $n \geq 30$). Since this study includes 75 observations, the violation of the normality assumption is not expected to substantially affect the validity of the regression results.

Multicollinearity Test

Table 4. Multicollinearity Test Results

Variable	VIF	1/VIF
Npm	2.71	0.368849
Roe	2.03	0.491794
Der	1.50	0.666110
Mean VIF	2.08	

(Source: Processed data, 2026)

Table 4 presents the results of the multicollinearity test using the Variance Inflation Factor (VIF). The results show that the VIF values for Net Profit Margin (NPM), Return on Equity (ROE), and Debt-to-Equity Ratio (DER) are 2.71, 2.03, and 1.50, respectively, with a mean VIF of 2.08. Since all VIF values are well below the commonly accepted threshold of 10, and the corresponding tolerance values (1/VIF) are above 0.10, there is no indication of serious multicollinearity among the independent variables. This finding indicates that DER, NPM, and ROE measure different dimensions of corporate financial performance and do not exhibit strong linear relationships with one another. Therefore, the regression coefficients can be estimated reliably, and the panel regression model satisfies the multicollinearity assumption, making it appropriate for subsequent hypothesis testing.

Autocorrelation Test

Table 5. Autocorrelation Test Results

Wooldridge test for autocorrelation in panel data	
Ho: no first-order autocorrelation	
F (1,14)	0.866
Prob > F	0.3679

(Source: Processed data, 2026)

The autocorrelation test was performed using the Wooldridge test, which produced an F (1,14) statistic of 0.866 and a Prob > F value of 0.3679. Since the probability value exceeds the 5% significance level, the null hypothesis of no first-order autocorrelation cannot be rejected. These results indicate that the regression residuals are free from serial correlation, suggesting that autocorrelation is not a concern in the panel data regression model. Consequently, the estimated regression coefficients are considered reliable and unbiased with respect to the autocorrelation assumption, supporting the validity of the subsequent panel regression analysis.

Heteroscedasticity Test

Table 6. Heteroscedasticity Test Results

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity	
Assumption: Normal error terms	
Variable: Fitted values of per	
Ho: Constant variance	
chi2(1)	0.10
prob > chi2	0.7520

(Source: Processed data, 2026)

The p-value, which is greater than the χ^2 of 0.7520 and the χ^2 (1) of 0.10, is the result of the Breusch-Pagan test for heteroscedasticity. This finding indicates that the p-value is greater than the 5% significance threshold, indicating that the null hypothesis cannot be rejected. Therefore, it can be concluded that the regression model is homoscedastic and not heteroscedastic.

Panel Data Regression Analysis

Table 7. Panel Data Analysis Results

Per	Coefficient
Der	.8043025
Npm	29.34913
Roe	-15.3362
cons	9.06355

(Source: Processed data, 2026)

The following regression equation is obtained from the REM estimation results:

$$Y = \alpha + b_1X_{1it} + b_2X_{2it} + b_3X_{3it} + e$$

$$PER = 9,0636 + 0,8043DER + 29,3491NPM - 15,3362ROE + e$$

Partial Test (T Test)

Table 8. Partial Test Results (T Test)

Per	Coefficient	Std. Err.	z	P > z	[95% conf. Interval]	
Der	.8043025	.8538577	0.94	0.346	-.8692278	2.477833
Npm	29.34913	9.806794	2.99	0.003	10.12817	48.5701
Roe	-15.3362	7.20274	-2.13	0.033	-29.45332	-1.219095
cons	9.06355	1.993824	4.55	0.000	5.155728	12.97137

(Source: Processed data, 2026)

The results of the partial significance (*t*) test indicate that the Debt-to-Equity Ratio (DER) has a probability value of 0.346, which is greater than the 5% significance level. Therefore, the null hypothesis (H_0) is accepted, and the alternative hypothesis (H_1) is rejected, indicating that DER does not have a statistically significant effect on the Price-to-Earnings Ratio (PER). In contrast, the Net Profit Margin (NPM) variable has a probability value of 0.003, which is below the 5% significance level. Accordingly, H_0 is rejected and H_1 is accepted, indicating that NPM has a positive and statistically significant effect on PER. Similarly, the Return on Equity (ROE) variable has a probability value of 0.033, which is also below the 5% significance level. Therefore, H_0 is rejected and H_1 is accepted, suggesting that ROE has a statistically significant effect on PER. Overall, the partial test results indicate that NPM and ROE significantly influence the Price-to-Earnings Ratio, whereas DER does not have a significant effect.

Simultaneous Test (F Test)

Table 9. Simultaneous Test Results (F Test)

Number of obs =	75
Number of groups =	15
Obs per groups:	
Min =	5
Avg =	5.0

Max =	5
Wald chi2(3) =	9.20
Prob > chi2 =	0.0268

(Source: Processed data, 2026)

The results of the simultaneous significance test show a Wald Chi-square statistic of 9.20 with a Prob > Chi² value of 0.0268, which is below the 5% significance level. Therefore, the null hypothesis (H₀) is rejected, and the alternative hypothesis (H₁) is accepted, indicating that the Debt-to-Equity Ratio (DER), Net Profit Margin (NPM), and Return on Equity (ROE) jointly have a statistically significant effect on the Price-to-Earnings Ratio (PER). This finding suggests that investors evaluate firm value based on the combined influence of capital structure and profitability rather than on individual financial indicators alone. Collectively, these financial ratios provide complementary information regarding a company's financial stability, operational performance, and ability to generate returns for shareholders, thereby influencing investors' assessments of market valuation.

Analysis of the Coefficient of Determination Test

Table 10. Results of the Coefficient of Determination Test

Random-effects GLS regression	
Group variable: code	
R-square:	
Within =	0.0402
Between =	0.3077
Overall =	0.1551

(Source: Processed data, 2026)

The overall R-squared value of 0.1551 was obtained from the regression data. This indicates that the various variables in the research model, namely DER, NPM, and ROE, explain 15.51% of the variance in PER. Meanwhile, various variables not included in the research model explain the remaining 84.49%.

The Effect of Debt-to-Equity Ratio on Price Earnings Ratio

A probability value of 0.346 was obtained from the significance test for the DER variable, which exceeds the 5% significance threshold. This finding supports the acceptance of H₀ and the rejection of H_a. The results of the study show that PER is not affected by DER. The reason behind this is that companies in certain industries, such as agribusiness, often rely on debt as part of their capital structure. This is due to the need for substantial funding in these sectors for things like business growth, long-term investments, assets, and production cycles (Warmana & Widnyana, 2016). Based on these findings, investors still view a higher DER as manageable. Therefore, their view of a company's stock price is unaffected by changes in DER.

According to Ross's Signaling Theory 1977, this makes sense. According to this school of thought, taking on debt represents confidence in a company's future. Companies confident in their ability to generate future earnings tend to be more willing to take on debt. Therefore, the positive correlation between DER and PER may arise because of investors viewing increasing DER as a favorable indicator. The research results, however, indicate that investors are no longer using debt levels as a primary metric for assessing a company. Investors are increasingly paying attention to metrics that indicate a company's profitability. According to Aprilia &

Anjarwati (2025), investors pay less attention to DER when making investment decisions because they consider net profit to be more important than a company's leverage level.

From an economic perspective, these findings indicate that debt use in agribusiness companies is primarily directed towards financing investment and business development, which is expected to increase production capacity and future company performance. Therefore, investors consider not only the amount of debt reflected in the DER, but also the intended use of the debt and the potential profits generated from the investment.

Overall, investors in the agribusiness sector do not consider leverage to be a primary determinant of company valuation. Because debt financing is generally used to support long-term productive investments, investors may perceive higher leverage as a normal business strategy rather than a signal of financial distress. Instead, investors appear to place greater emphasis on a company's ability to generate sustainable earnings and future growth (Aprilia & Anjarwati, 2025). Consequently, differences in capital structure alone are insufficient to influence market valuations, as reflected in the Price-to-Earnings Ratio (P/E ratio).

These results align with the findings of research by Ida & Sitanggang (2022), which found no significant relationship between PER and DER. These results suggest that investors, particularly in the agricultural sector, do not place significant emphasis on a company's leverage ratio when evaluating its prospects and market value.

The Influence of Net Profit Margin on the Price-to-Earnings Ratio

The results of the partial hypothesis test indicate that the Net Profit Margin (NPM) has a positive and statistically significant effect on the Price-to-Earnings Ratio (PER). The estimated probability value of 0.003 is below the 5% significance level, leading to the rejection of the null hypothesis and the acceptance of the alternative hypothesis. This finding suggests that firms with higher profitability, as measured by NPM, tend to receive higher market valuations, as reflected in a higher PER. A higher NPM demonstrates the company's ability to efficiently convert sales into net income through effective cost management and operational performance (Susilo, 2025). This finding is also consistent with Kenneth S. Bigel's 2022 argument that an NPM of approximately 20% or above generally reflects strong financial performance. Since profitability represents a firm's capacity to generate sustainable earnings from its operations, investors frequently use NPM as an important indicator when assessing investment opportunities. Consequently, companies that consistently report higher profit margins tend to attract greater investor confidence, resulting in higher market valuations (Astuti, 2022).

The positive relationship between NPM and PER can also be explained by the economic characteristics of agribusiness companies. Profitability within this sector is strongly influenced by commodity prices, production costs, operational efficiency, government policies, and changing market conditions (Liati et al., 2026). Despite these uncertainties, companies that are able to maintain relatively high profit margins demonstrate superior managerial capability in controlling costs and utilizing available resources efficiently. Stable or increasing net profit margins signal strong operational performance, enabling firms to finance business expansion, distribute dividends, strengthen internal financing capacity, and reduce dependence on external funding sources (Susanti et al., 2021). Such financial strength provides a positive signal to investors regarding the company's long-term sustainability and future earnings potential.

From an investment perspective, investors generally interpret a consistently high NPM as evidence of efficient business operations and sustainable profitability. In the agribusiness industry, where financial performance is highly exposed to commodity price volatility and climate uncertainty, firms capable of maintaining stable profit margins are perceived as

possessing stronger competitive advantages and greater resilience against external shocks. Consequently, higher profitability encourages investors to assign higher market valuations because they expect these firms to generate stable future cash flows and maintain favorable business performance over the long term.

The findings of this study are consistent with previous empirical research conducted by Yudita & Triyonowati (2023) and Sutriyadi (2023), both of whom reported that profitability has a positive and significant influence on company valuation and stock prices. Therefore, the present findings reinforce the argument that stronger profitability, reflected in a higher Net Profit Margin, increases investor confidence and contributes positively to the Price-to-Earnings Ratio of agribusiness companies listed on the Indonesia Stock Exchange.

The Influence of Return on Equity on the Price-to-Earnings Ratio

The results of the hypothesis test demonstrate that Return on Equity (ROE) has a statistically significant negative effect on the Price-to-Earnings Ratio (PER). The estimated probability value of 0.033 is below the 5% significance level, indicating that the null hypothesis should be rejected. Although ROE reflects a company's effectiveness in generating profits from shareholders' equity, the negative coefficient suggests that higher profitability does not necessarily translate into a higher market valuation. Instead, investors appear to evaluate corporate performance beyond current earnings by considering whether profitability can be sustained over the long term. Therefore, an increase in ROE does not automatically result in a higher PER if investors perceive limited future growth opportunities or question the sustainability of current earnings (Agustina, 2025).

This finding is consistent with the stock valuation framework proposed by Smyth & Narayan (2018), which argues that stock prices are primarily determined by the present value of expected future cash flows rather than by current earnings alone. Consequently, investors purchase future growth prospects rather than existing profitability. Likewise, Atento (2025), Ciurel & Deselnicu (2025) explain that the Price-to-Earnings Ratio reflects market expectations regarding future corporate performance, implying that investors simultaneously evaluate current profitability, earnings sustainability, growth opportunities, and investment risk when determining company value.

Within the agribusiness sector, the negative relationship between ROE and PER may be attributed to the industry's unique business characteristics. Agribusiness firms frequently experience temporary increases in profitability resulting from favorable commodity prices or seasonal production cycles rather than permanent improvements in operational efficiency. Consequently, investors may perceive unusually high ROE as transitory and therefore hesitate to assign higher market valuations. Instead, they evaluate whether current profitability can be maintained under future market uncertainty. If high ROE is considered temporary or unsupported by long-term growth prospects, investors are less willing to pay a premium for the company's earnings, leading to a relatively lower Price-to-Earnings Ratio.

The findings are consistent with those reported by Fadillah et al. (2024), who also found that ROE negatively and significantly affects the Price-to-Earnings Ratio. These results suggest that investors in the agribusiness sector evaluate companies comprehensively by considering not only profitability but also future growth potential, earnings quality, business sustainability, and the risks associated with maintaining current financial performance.

The Simultaneous Effect of Debt-to-Equity Ratio, Net Profit Margin, and Return on Equity on the Price-to-Earnings Ratio

The simultaneous hypothesis test demonstrates that Debt-to-Equity Ratio (DER), Net Profit Margin (NPM), and Return on Equity (ROE) jointly have a significant effect on the Price-to-Earnings Ratio (PER). The Wald Chi-square test produced a probability value of 0.0268, which is below the 5% significance level. Therefore, the null hypothesis is rejected, indicating that the three financial ratios collectively explain variations in the market valuation of agribusiness companies. This finding suggests that investors do not evaluate financial performance based on a single indicator but instead consider multiple aspects of a company's financial condition simultaneously.

Each financial ratio provides different but complementary information regarding corporate performance. The Debt-to-Equity Ratio reflects the firm's financing strategy and financial leverage, indicating how the company balances internal and external sources of capital. Net Profit Margin measures operational efficiency by evaluating the firm's ability to convert sales into net income, whereas Return on Equity reflects management's effectiveness in generating returns from shareholders' investments. Together, these financial indicators provide a comprehensive assessment of capital structure, profitability, operational performance, and shareholder value creation, thereby assisting investors in evaluating a company's long-term investment prospects.

From a practical perspective, the findings imply that investment decisions in the agribusiness sector are influenced by the interaction of leverage, profitability, and managerial efficiency rather than by any individual financial ratio. Investors tend to evaluate financial performance holistically because agribusiness companies operate in an environment characterized by commodity price volatility, biological production cycles, climate uncertainty, and changing market conditions. Consequently, comprehensive financial analysis provides more reliable information regarding business sustainability, future earnings potential, and firm value than reliance on a single financial indicator. These results further indicate that successful agribusiness firms are those capable of maintaining an appropriate capital structure while simultaneously achieving sustainable profitability and efficient utilization of shareholders' equity.

Conclusion

This study examined the effect of the Debt-to-Equity Ratio (DER), Net Profit Margin (NPM), and Return on Equity (ROE) on the Price-to-Earnings Ratio (PER) of agribusiness companies listed on the Indonesia Stock Exchange during the 2021–2025 period. The findings indicate that DER has no significant effect on PER, whereas NPM has a significant positive effect and ROE has a significant negative effect on PER. Simultaneously, DER, NPM, and ROE significantly influence PER, suggesting that investors evaluate agribusiness firms by considering multiple dimensions of financial performance rather than relying on a single financial indicator. These findings highlight the greater importance of profitability and future growth expectations over capital structure in determining firm valuation within the agribusiness sector. However, the model explains only 15.51% of the variation in PER, indicating that other firm-specific and macroeconomic factors also contribute substantially to company valuation. Therefore, future studies are encouraged to incorporate additional financial indicators, macroeconomic variables, and longer observation periods to provide a more comprehensive understanding of the determinants of the Price-to-Earnings Ratio.

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