Analysis the Influence of Liquidity, Solvency Activity and Profitability on Profit Growth

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ABSTRACT

Objectives*: The aim of this research is to reveal that agricultural sector plays a crucial role in strengthening Indonesia's economic stability and ensuring food security. Despite this, profit growth in companies within this sector showed variability during the 2019–2023 period.*
Methodology*: This study investigates the influence of the Current Ratio, Debt to Equity Ratio, Total Asset Turnover, and Return on Assets on profit growth. Employing a causal research design, the study population comprised 46 agricultural companies. Fifteen companies were purposively selected as samples. Data analysis was performed using panel data regression through Eviews 13 software.*
Findings*: The findings reveal that the Current Ratio and Total Asset Turnover do not have a significant impact on profit growth, whereas the Debt to Equity Ratio and Return on Assets positively and significantly affect profit growth. These results are intended to provide guidance for companies and investors in formulating financial strategies that promote sustainable profit growth in the agricultural sector.*
Conclusion*: The empirical results reveal that CR and TATO do not exert a significant influence on profit growth, while both DER and ROA have a positive and measurable effect. These findings underscore the strategic importance of managing leverage and asset profitability, particularly through optimizing their performance.*

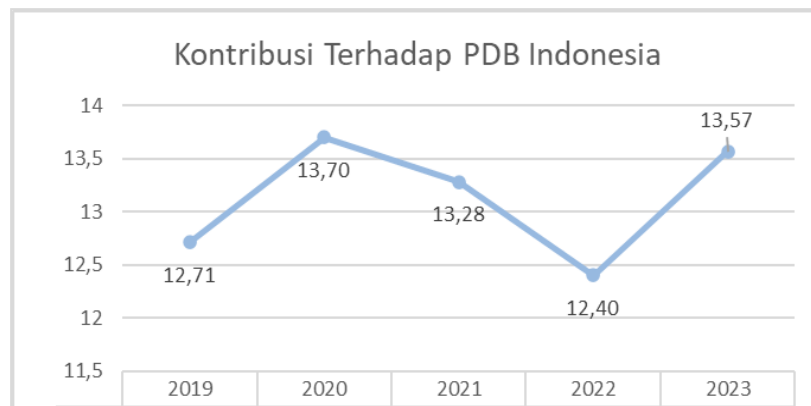***Keywords****: Current Ratio; Debt to Equity Ratio; Total Asset Turnover; Return on Asset; Profit Growth.*

INTRODUCTION

Indonesia's economy has maintained a relatively stable level of resilience despite the challenges posed by global uncertainty. Various dynamics including the post-pandemic recovery from COVID-19, geopolitical tensions, and fluctuations in commodity prices have shaped business activities across multiple sectors. Within this landscape, the agricultural sector stands as a strategic pillar of the national economy. Beyond its role in safeguarding food security, The sector plays a significant role in contributing to Gross Domestic Product (GDP) and job creation. Between 2019 and 2023, its GDP contribution remained steady. In 2019, it accounted for 12.71% of the national GDP, rising to 13.70% in 2020, underscoring its resilience during

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the pandemic. Although the proportion experienced a decline in 2021 and 2022, it rebounded to 13.57% in 2023. This persistent contribution highlights the sector's crucial function in sustaining the momentum of national economic growth.
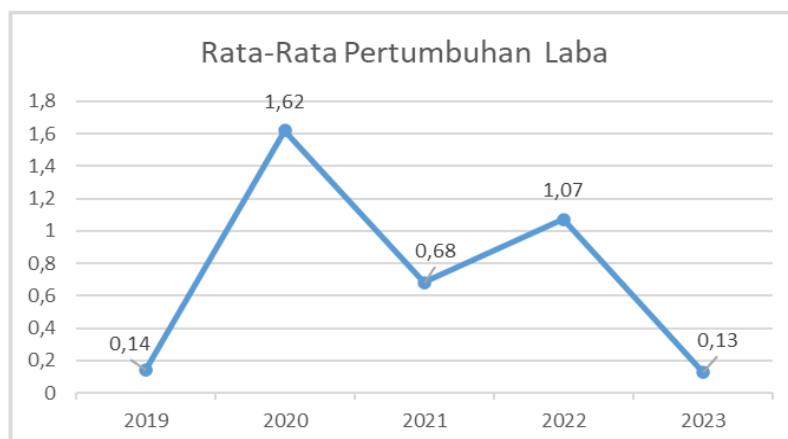
Figure 1. Contribution of the agricultural sector to national GDP 2019–2023

Source: Statistics Indonesia (BPS)

Nevertheless, positive macro trends are not always reflected in the micro financial performance of agricultural companies listed on the Indonesia Stock Exchange (IDX). The average profit growth graph of issuers in the agricultural sector shows a fluctuating and weakening trend over the past five years. The average profit growth increased from 0.14% (2019) to 1.62% (2020), then drastically declined to 0.13% in 2023 (Figure 2). This phenomenon indicates managerial and operational pressures at the company level, which need to be further examined.

Figure 2. Average profit growth of agricultural sector issuers 2019–2023

Source: Processed IDX data, 2024

The fluctuation of profit growth among agricultural sector issuers during 2019–2023 demonstrates unstable financial performance, marked by a significant drop in 2023 following increases in 2020 and 2022. This volatility is closely linked to the economic disturbances triggered by the Covid-19 outbreak, spanning both the pre- and post-pandemic periods. The agricultural sector is inherently sensitive to external influences, including seasonal planting cycles, climate variability, logistical constraints, and commodity price fluctuations. To navigate such challenges, companies must enhance their adaptive capacity by leveraging internal strengths. Financial ratio analysis covering liquidity, solvency, activity, and profitability remains a key tool for assessing past performance and forecasting the sustainability of future profits.

LITERATURE REVIEW

Signaling Theory

Signaling Theory, first introduced by Michael Spence (1973), explains that company management conveys information to external parties to indicate the internal condition and prospects of the company. This information is generally delivered through financial statements, which are considered important signals in decision-making by investors and creditors (Kudus & Meidiyustiani, 2022). Strong and transparent signals from the company will increase market confidence in the sustainability of operations and the quality of corporate governance. Thus, it becomes an essential basis in analyzing the relevance of financial information.

Trade-Off Theory

Trade-Off Theory of capital structure states that firms must balance the benefits of debt financing and the financial risks involved. Debt offers tax advantages through interest deductibility but also poses financial distress risks if not managed carefully (Nikodemus & Oktasari, 2021). An optimal structure is reached when tax shields exceed agency costs and default risk. Companies may choose debt even with sufficient internal funds (Octavia et al., 2021). When used strategically, debt supports expansion and profitability; however, excessive reliance can erode earnings due to rising interest expenses.

Profit Growth

Profit growth represents a key financial metric that illustrates a firm's capacity to enhance net earnings relative to the preceding fiscal period. It serves as an important benchmark for evaluating corporate performance, as higher profit growth reflects effective and efficient utilization of resources (Endri et al., 2020). Beyond its role as a performance indicator, profit growth conveys a positive market signal regarding the company's future outlook and is frequently referenced by investors, creditors, and policymakers in decision-making processes. Substantial increases in profit indicate stronger earnings potential, reinforce a company's capacity to distribute greater dividends, and demonstrate overall financial resilience factors that can significantly bolster investor confidence.

Liquidity Ratio

Liquidity ratio measures a company's ability to settle short-term obligations. A key indicator is the Current Ratio, which compares current assets to current liabilities. it as reflecting short-term

liquidity, and also shows creditor protection through effective management of cash flow and current assets (Rahayu 2020).

Solvency Ratio

Solvency ratio indicates a company's capacity to fulfill its long-term liabilities or all obligations in the event of liquidation (Harahap, 2018). A commonly used measure is the Debt to Equity Ratio, which compares total debt to shareholders' equity to evaluate the proportion of financing obtained from creditors relative to owners.
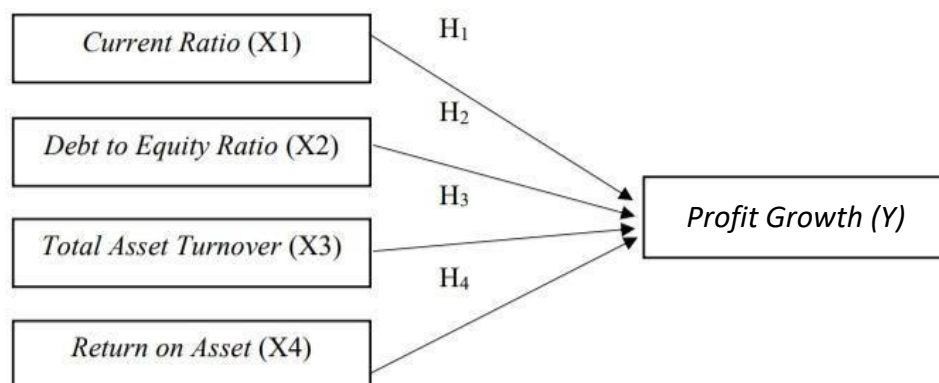
Activity Ratio

Activity ratio serves as an indicator of a company's efficiency in managing its assets. It reflects how effectively assets are utilized to support operations. One common measure is the Total Asset Turnover, which compares net sales to average total assets (Muslichah & Bahri, 2021), indicating how well all assets are employed to generate revenue within a given period.

Profitability Ratio

Profitability ratio evaluates a company's capacity to generate earnings from its resources. explains that it reflects the ability to generate profit through sales, assets, or equity. A common indicator is Return on Assets, which evaluates how effectively assets generate profit, And serves as a key benchmark for external stakeholders in analyzing a company's financial performance (Astuti et al., 2021).

Figure 3. Conceptual Framework

Description:

1. The independent variable (X) is a variable that influences or is a determining factor for other variables, but is not influenced by those variables. This is:

X1: Current Ratio

X2: Debt to Equity Ratio X3: Total Asset Turnover X4: Return On Asset

2. The dependent variable (Y) is a variable whose value depends on the independent variable. Y: Profit Growth.

METHOD

Research Design

This study adopts a causal research design to investigate the influence of the Current Ratio, Debt to Equity Ratio, Total Asset Turnover, and Return on Assets on profit growth. The aim is to assess how these independent variables affect the dependent variable within a corporate finance framework. The results are expected to enhance understanding of the dynamics of corporate financial performance.

Population and Sample

This study employs a quantitative approach with a causal research design. Data were collected through documentation analysis, using annual financial reports obtained from official company and stock exchange websites. The population comprises 46 agricultural companies listed on the Indonesia Stock Exchange (IDX) from 2019 to 2023. The sample was determined through purposive sampling, Based on these criteria, 15 companies were selected, yielding 75 firm-year observations.

Data Analysis Method

Data analysis is the process of organizing and managing collected data so that it can be interpreted and used to address the research problem. This analysis is grounded in theory to ensure valid scientific conclusions. Panel data regression was performed using EViews 13 software to examine the influence of the independent variables on the dependent variable.

RESULTS AND DISCUSSION

Descriptive Statistical

Table 1. Descriptive Statistical

	PL	CR	DER	TATO	ROA
Mean	0.710255	1.870547	3.291492	0.761987	0.077031
Median	0.088235	1.119945	0.986835	0.553704	0.049326
Maximum	8.957042	9.525022	92.50039	4.017761	0.582526
Minimum	-0.971902	0.060138	0.102822	0.063603	0.001020
Std. Dev.	1.850129	2.075739	11.18487	0.672219	0.097415
Observations	75	75	75	75	75

Source: IDX (processed using EViews 13, 2025)

Based on the descriptive statistics in Table 1, this study comprises 75 observations from 15 companies over a five-year period (2019–2023). The analysis covers four independent variables Current Ratio (CR), Debt to Equity Ratio (DER), Total Asset Turnover (TATO), and Return on Assets (ROA) and one dependent variable, Profit Growth (PL).

Panel Data Regression Model Selection Results

Table 2. Panel Data Regression Model Selection Results

Test	Statisitic Value	Probability Value	Model
Chow test	0.677924	0.7856	Common Effect
Hausman test	6.14736	0.1884	Random Effect
Lagrange Multiplier test	1.494920	0.2215	Common Effect

Source: IDX (processed using EViews 13, 2025)

The results of the Chow and Lagrange Multiplier tests, both showing p-values greater than 0.05, indicate that the common effect model is the most suitable choice. Although the Hausman test also returned a p-value above 0.05, suggesting a preference for the random effect model, the findings from the Chow and LM tests, which assess the overall model structure support the adoption of the common effect model as the estimation approach in this study.

Classical Assumption Testing Results

Normality Test Result

Normality assessment in this study refers to the Central Limit Theorem (CLT), which states that for large samples ($n > 30$), the sampling distribution tends to approximate normality regardless of the population distribution. With 75 observations, the dataset meets this criterion (Gujarati, 2015), allowing the residuals to be theoretically treated as normally distributed. Therefore, the normality assumption is considered fulfilled, and the regression model is deemed suitable for further statistical analysis.

Multicollinearity Test Results

Table 3. Multicollinearity Test Results (VIF)

Variance Inflation Factors
Date: 07/25/25   Time: 17:16
Sample: 1 75
Included observations: 75

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.148692	4.318322	NA
CR	0.008495	1.912101	1.048853
DER	0.000398	1.551547	1.426354
TATO	0.079648	2.374381	1.031318
ROA	5.162273	2.293360	1.403749

Source: IDX (processed using EViews 13, 2025)

The tolerance values prove that each independent variable is > 0.10, and the VIF values for each independent variable are < 10. This indicates there is no multicollinearity among the independent variables in the model.

Heteroscedasticity Test Results

Table 4. Heteroscedasticity Test Results (White Test)

Heteroskedasticity Test:

White Null hypothesis:

Homoskedasticity

F-statistic	1.575919	Prob. F(14,60)	0.1129
Obs*R-squared	20.16399	Prob. Chi-Square(14)	0.1251
Scaled explained SS	34.27642	Prob. Chi-Square(14)	0.0019

Source: IDX (processed using EViews 13, 2025)

The value of Obs*R-squared is 20.16399 with a probability of 0.1251. Based on the White Test, all independent variables fall under H₀ acceptance, which means the model is homoscedastic.

Panel Data Regression Analysis Results

Based on the previous results, the panel data regression analysis in this study uses the Common Effect Model with the following results:

Table 5. Panel Data Regression Analysis Results

Dependent Variable: PL
Method: Panel Least Squares
Date: 03/26/25 Time: 14:1
Sample: 2019 2023
Periods included: 5
Cross-sections included: 15
Total panel (balanced) observations: 75

Variable	CoefficientStd. Error	t-Statistic	Prob.
C	0.0383890.385607	0.099555	0.9210
CR	-0.0472000.092169	-0.512107	0.6102
DER	0.0521970.019947	2.616737	0.0109
TATO	0.2219580.282220	0.786471	0.4342
ROA	5.4422292.272064	2.395280	0.0193

R-squared	0.286330Mean dependent var	0.710255
Adjusted R-squared	0.245548S.D. dependent var	1.850129
S.E. of regression	1.607007Akaike info criterion	3.850964
Sum squared resid	180.7729Schwarz criterion	4.005463
Log likelihood	-139.4111Hannan-Quinn criter.	3.912654
F-statistic	7.021123Durbin-Watson stat	2.192588
Prob(F-statistic)	0.000082	

Source: IDX (processed using EViews 13, 2025)

Regression Equation: **PL = 0.038389 – 0.047200(CR) + 0.052197(DER) + 0.221958(TATO)**

+ 5.442229(ROA)

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Explanation:

1. The constant of 0.038389 indicates that if CR, DER, TATO, and ROA are zero, profit growth is expected to be 0.038389.
2. The CR coefficient is -0.047200, meaning a 1% increase in CR leads to a decrease in profit growth by 0.047200.
3. The DER coefficient of 0.052197 implies that a 1% increase in DER tends to increase profit growth by 0.052197.
4. The TATO coefficient of 0.221958 means that a 1% increase in TATO tends to increase profit growth by 0.221958.
5. The ROA coefficient of 5.442229 suggests that a 1% increase in ROA can increase profit growth by 5.442229.

Coefficient of Determination (R^2) Test Results

Table 7. R^2 Test Results

R-squared	0.286330
Adjusted R-squared	0.245548

Source: IDX (processed using EViews 13, 2025)

The Adjusted R-squared value of 0.245548 indicates that approximately 24.55% of the variation in profit growth is explained by CR, DER, TATO, and ROA, while the remaining 75.45% is attributable to other factors not included in the model.

Partial Significance Test (t-Test) Results

Table 8. Partial Significance (t-Test)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.038389	0.385607	0.099555	0.9210
CR	-0.047200	0.092169	-0.512107	0.6102
DER	0.052197	0.019947	2.616737	0.0109
TATO	0.221958	0.282220	0.786471	0.4342
ROA	5.442229	2.272064	2.395280	0.0193

Source: IDX (processed using EViews 13, 2025)

Hypothesis Testing Criteria, If probability $< 0.05 \rightarrow$ H1 accepted, H0 rejected, If probability

$> 0.05 \rightarrow$ H1 rejected, H0 accepted Explanation:

1. Current Ratio (CR) has a probability of 0.6102 (> 0.05), so H1 is rejected and H0 is accepted. CR does not significantly affect profit growth. This contradicts the initial hypothesis.

2. Debt to Equity Ratio (DER) has a probability of 0.0109 (< 0.05), so H2 is accepted and H0 is rejected. DER has a positive and significant effect on profit growth.

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3. Total Asset Turnover (TATO) has a probability of 0.4342 (> 0.05), so H3 is rejected and H0 is accepted. TATO does not significantly affect profit growth.

4. Return on Asset (ROA) has a probability of 0.0193 (< 0.05), so H4 is accepted and H0 is rejected. ROA has a positive and significant effect on profit growth.

Discussion

1. Influence of the Current Ratio on Profit Growth

The results of this study show that the Current Ratio (CR) has no effect on profit growth. This phenomenon occurs because companies do not rely solely on current assets to meet short- term liabilities that support operational continuity and profitability, but also allocate them for other needs that do not always have a direct impact on profitability. In the agricultural sector, the efficient use of current assets is often constrained by external factors such as planting seasons, weather, and commodity price fluctuations. Cash is retained for seasonal needs, receivables are tied up due to delayed collection, and inventories are accumulated while waiting for favorable selling prices. These conditions cause current assets to not immediately contribute to increased profits.

Although the Current Ratio is often seen as a signal of a company's liquidity, the disconnect between a higher CR and profit growth suggests that this signal is limited. Therefore, while it remains important in assessing the company's ability to meet short-term obligations, it may not be a reliable primary indicator for investment decisions or overall profit projections. This result is consistent with the findings of Putri & Arisudhana (2024), and Lathifah & Oktasari (2022), Which indicated that CR does not have an impact on profit growth.

2. Influence of Debt to Equity Ratio on Profit Growth

The study indicates that the Debt to Equity Ratio (DER) has a positive effect on profit growth. This finding suggests that the use of debt enables companies to obtain additional financing for operational expansion or investment, especially when internal capital is limited. If managed efficiently, debt can act as leverage to enhance profitability. A high DER creates financial pressure that encourages efficiency and discipline in financial management, thereby pushing management to optimize profits in a measured manner.

From the perspective of Trade-Off Theory, this condition reflects the company's effort to balance the benefits of tax savings from using debt with the associated financial risks, such as interest expenses and the possibility of default. An increase in DER accompanied by profit growth indicates effective capital structure management, where debt usage positively contributes to financial performance. These findings align with those of Purwandari et al. (2023), and Widiasmara et al. (2022), Which demonstrated that DER exerts a positive effect on profit growth.

3. Influence of Total Asset Turnover on Profit Growth

Based on the results of this study, Total Asset Turnover (TATO) does not have a significant effect on profit. This condition can be explained by the nature of the agricultural sector, which is typically asset-intensive, involving large-scale ownership of land, heavy equipment, and production facilities. Although these assets are vital to operations, the associated maintenance costs, logistics, and production inputs also create significant operational burdens. As a result,

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increased sales do not necessarily translate into higher profits because much of the revenue is absorbed by these expenses.

From the perspective of Signaling Theory, the mismatch between a high activity ratio and profit growth may generate negative signals for investors. This reflects that companies may not be fully able to maximize their assets to generate sustainable added value. These findings are consistent with those of Hung & Viriany (2023), and Tiyas et al. (2022), Which demonstrated that TATO exerts no effect on profit growth.

4. Influence of Return on Assets on Profit Growth

The research findings show that Return on Assets (ROA) has a positive effect on profit growth. This finding indicates that efficiency in utilizing assets plays a crucial role in increasing profitability. Companies that can optimally manage their assets are able to generate profits without significantly increasing their asset base. This is especially important for the asset-intensive agricultural sector, where resource optimization helps maintain productivity and supports sustainable profit growth.

From the perspective of Signaling Theory, a high ROA sends a positive signal to investors. It reflects effective management in generating profits from existing assets and strengthens perceptions of the company's financial stability and credibility. This condition increases the attractiveness of the company as an investment opportunity, particularly amid dynamic economic conditions. These findings are in line with those of, Karim & Asrianto (2023), and Pawe & Santoso (2021), Which demonstrated that ROA exerts a positive effect on profit growth.

CONCLUSION

This research examines the impact of the Current Ratio (CR), Debt to Equity Ratio (DER), Total Asset Turnover (TATO), and Return on Assets (ROA) on profit growth among agricultural sector companies listed on the Indonesia Stock Exchange over the 2019–2023 period. The empirical results reveal that CR and TATO do not exert a significant influence on profit growth, while both DER and ROA have a positive and measurable effect. These findings underscore the strategic importance of managing leverage and asset profitability, particularly through optimizing their performance. Firms with elevated leverage levels need to ensure that debt financing is utilized effectively to generate returns without eroding profits through excessive interest costs. Conversely, companies with lower leverage may benefit from prudent debt utilization to support expansion. In parallel, high ROA values signal effective asset deployment and operational efficiency, whereas lower values indicate the need for stronger productivity and resource management.

From a practical standpoint, agricultural firms should focus on maintaining balanced leverage strategies and improving the profitability of asset use to secure long-term profit growth. For investors, DER and ROA serve as critical indicators when evaluating the financial prospects of potential investment targets, particularly those exhibiting consistent operations and strong profitability. Future studies are encouraged to broaden the research scope by increasing sample coverage, extending the observation horizon, and integrating other financial metrics such as the Quick Ratio or Inventory Turnover. Such enhancements are expected to deliver more

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comprehensive and applicable insights into the determinants of profit growth across various industrial sectors.

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