

Comparing Profitability, Solvency, and Capital Adequacy Effects on Price Earnings Ratio in Indonesian Banks

Zia Tsabitah Khoirunnisa^{1*}, Agus Maolana Hidayat²

Universitas Telkom, Bandung, Indonesia^{1,2}

ziakhrn@student.telkomuniversity.ac.id^{1*}, agusmh@telkomuniversity.ac.id²



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Abstract

Purpose: This study examines the effects of profitability, solvency, and capital adequacy on the Price Earnings Ratio (PER) in two distinct ownership segments of the Indonesian banking sector, namely state-owned banks (Himbara) and privately owned conventional commercial banks listed on the Indonesia Stock Exchange (IDX), and compares the differential patterns of influence between the two groups.

Research Methodology: This study employs a quantitative comparative descriptive approach with panel data regression estimated using EViews. The sample comprises four Himbara banks (Bank Mandiri, BRI, BNI, and BTN) and five private banks (BCA, OCBC NISP, CIMB Niaga, Bank Permata, and Bank Danamon), covering the period 2015–2024, and yielding 90 observations in total.

Results: In Himbara banks, ROE has a significant negative effect on the P/E ratio, DAR has a significant positive effect, and CAR has no significant effect. In private banks, ROE has no significant effect, DAR has no significant effect, and CAR has a significant positive effect. Taken together, the three variables jointly have a significant effect on the P/E ratio in both banking groups.

Conclusions: The differences in ownership structures between Himbara and private banks produce different patterns of influence on PER.

Limitations: This study is limited to nine banks over a ten-year period and does not include macroeconomic factors as control variables.

Contributions: This study provides empirical evidence that comparative research based on the bank ownership structure produces richer and more nuanced findings than studies that pool all banks into a single model.

Keywords: *Capital Adequacy Ratio, Debt to Asset Ratio, Indonesian Bank, Price-Earnings Ratio, Return on Equity*

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1. Introduction

The banking industry plays a strategic role in the economies of nations. As stated in Law No. 10 of 1998, the banking sector functions as a financial intermediary that mobilizes public funds and channels them as credit to support economic growth. In the Indonesian context, the banking industry is dominated by two major groups based on their ownership structure: Himbara (*Himpunan Perbankan Milik Negara*, or the Association of State-Owned Banks) and conventional private

commercial banks listed on the Indonesia Stock Exchange (IDX). Based on data published by the Financial Services Authority or locally *Otoritas Jasa Keuangan* (OJK), as cited by , the total assets of the four Himbara banks reached IDR 5,076.69 trillion as of June 2024. Meanwhile, Agustinus Yoga [Primantoro \(2025\)](#) reported that in the third quarter of 2025, the asset growth of private banks reached 5.64 percent, compared to a decline of 8.22 percent for Himbara banks, even though Himbara banks still dominated total asset holdings. The ongoing competition between these two groups can be considered a cornerstone of Indonesia banking industry.

As publicly listed companies on the Indonesia Stock Exchange (IDX), the performance of these two groups of banks is evaluated not only from an operational standpoint but also from the perspective of capital market investors. One of the key indicators investors use to assess the valuation of bank shares is the Price-Earnings (P/E) ratio, which reflects how much investors are willing to pay for every unit of profit a company generates ([Brigham & Houston, 2018](#)). A high P/E ratio indicates that investors have positive expectations regarding a bank's future earnings growth, making it a direct reflection of the market's view of the bank's financial quality and prospects.

Based on the financial statement data compiled for this study, the P/E ratios of the Himbara and private bank groups showed fluctuation patterns that were not always consistent with the movement of their fundamental financial ratios over the 2015–2024 period. Historically, private banks, particularly BCA, have recorded higher P/E ratios than Himbara banks. This is consistent with earlier research showing that BCA's P/E ratio reached 28.54 in 2021, the highest among large-asset banks, even though Himbara banks held far greater total assets ([Susanti & Sukarno, 2021](#)).

The determinants of the P/E ratio have attracted considerable scholarly attention; however, prior research has revealed notable inconsistencies in the findings. Regarding profitability, [Putri, Amanah, Aini, and Soelistyoningrum \(2023\)](#) documented a significant positive effect of ROE on the P/E ratio in the banking industry. Meanwhile [Melliana, Wiyono, and Sari \(2021\)](#) report a significant negative relationship in the manufacturing sector. With respect to solvency, [Kurniawan, Habibi, and Arifin \(2020\)](#) find no significant effect of DAR on the P/E ratio, while [Lestari and Merliana \(2024\)](#) report a significant negative relationship. On capital adequacy, [Nusantara, Banani, and Sulistyandari \(2018\)](#) finds that CAR exerts a positive but insignificant effect on the P/E ratio, in contrast to [Iskandar, Zaki, and Sinollah \(2020\)](#), who document a significant positive effect.

These empirical inconsistencies are further compounded by the observation that a substantial body of existing research positions the P/E ratio as an independent or moderating variable rather than as the dependent variable under examination. A granular understanding of the factors driving the P/E ratio in each banking ownership segment has significant practical implications. For investors, such insights can provide a more informed basis for investment decisions by incorporating the ownership structure as a determinant of valuation. For regulators, such as the OJK, this understanding can strengthen the evidential foundation for differentiated supervisory policy frameworks.

For bank management, the findings signal that market value enhancement strategies must be tailored to the specific ownership category of each institution, as the drivers effective in Himbara banks may not be relevant or may operate differently in private banks, and vice versa. Based on the phenomena and literature gaps described above, this study aims to fill those gaps in previous research by analyzing the effects of profitability, solvency, and capital adequacy on the P/E ratio, comparing Himbara and private banks using a comparative approach based on ownership structure, covering the period 2015–2024, both partially and simultaneously. This study is titled "Comparing the Effects of Profitability, Solvency, and Capital Adequacy on the Price-Earnings Ratio in Indonesian Banks."

2. Literature Review and Hypotheses Development

2.1 Price-Earnings Ratio

The Price-Earnings Ratio (P/E ratio) is a market valuation ratio that reflects how much investors are willing to pay for each unit of profit generated by a company ([Brigham & Houston, 2018](#)). According to [Utami, Mutmainah, and Jannati \(2023\)](#), the P/E ratio indicates how many rupiah an investor must

pay to obtain one rupiah of company profit; thus, a high P/E ratio reflects positive market expectations about future earnings growth. [Ikhsan and Fahruri \(2021\)](#), describe the P/E ratio as the ratio of the market price per share to earnings per share and identify it as a primary tool in investment decision-making. [Neldi and Hady \(2023\)](#), empirically confirmed that the P/E ratio is a valid and responsive proxy for firm value and is sensitive to changes in the fundamental financial performance of Indonesian banks. This notion of firm value ultimately reflects investors' perceptions of how effectively a company manages its resources ([Susanto, Hidayat, & Kartawinata, 2025](#)).

2.2 Profitability

Profitability describes how well a company converts its available resources into earnings. [Mutiarra, Hidayat, and Madiawati \(2024\)](#), assert that profitability serves not only as a crucial indicator of a company's performance but also signifies higher returns for investors and is shaped by a variety of internal and external factors that collectively determine a firm's long-term success. This study uses Return on Equity (ROE) as a proxy for profitability, a measure that indicates how effectively a firm produces profit relative to the equity held by its shareholders. [Ula, Widodo, Pramono, and Puspita \(2024\)](#), assert that ROE reflects the efficiency with which equity capital is employed to produce earnings; consequently, higher ROE indicates more effective utilization of equity resources.

[Kasmir \(2019\)](#), adds that high profitability ratios signal favorable prospects, prompting investors to react positively and driving upward market revaluations. From the perspective of signalling theory, an increase in ROE represents a positive signal that motivates investors to pay a higher price per unit of earnings, thereby increasing the P/E ratio. [However, Kurniawan et al. \(2020\)](#) demonstrates that ROE exerts a positive but insignificant effect on P/E ratio, explaining that when earnings per share grow faster than share price appreciation, PER is mathematically compressed. A different conclusion was reached by [Werang, Wiyono, and Sari \(2023\)](#) whose findings show that ROE exerts a meaningful and statistically significant positive influence on the P/E ratio.

H₁: Profitability (ROE) has a significant effect on the Price–Earnings Ratio (P/E ratio) in both Himbara and private banks

2.3 Solvency

Solvency reflects a firm's ability to honour all of its financial obligations, regardless of whether they fall due in the short or long term. To measure solvency in this study, the Debt-to-Asset Ratio (DAR) is used, which shows what share of a company's total assets is funded through debt. [Hasanatur et al. \(2025\)](#), describe the DAR as a financial metric that quantifies the degree to which a company relies on debt to finance its asset base. [Prastyawan and Suhendah \(2025\)](#) describe leverage, as captured by the Debt-to-Equity Ratio, as a financial mechanism through which firms employ fixed-cost funding to magnify the potential gains delivered to shareholders.

As DAR increases, the debt burden relative to total assets increases, potentially heightening investors' perceived risk. In the prior literature, [Lestari and Merliana \(2024\)](#) find that DAR has a significant negative effect on firm value, whereas [Syahputri \(2025\)](#), and [Sudibyo and Akbar \(2018\)](#), whose comparative study of IDX-listed companies found that solvency ratios showed no significant difference before and after M&A events, find no significant effect of DAR on the value of conventional banking firms.

H₂: Solvency (DAR) has a significant negative effect on the price–Earnings Ratio (P/E ratio) in both Himbara and private banks

2.4 Capital Adequacy Ratio

Capital adequacy is a sector-specific variable in banking that is subject to stringent regulatory oversight. In this study, capital adequacy is proxied by the Capital Adequacy Ratio (CAR), which measures a bank's capacity to absorb potential losses arising from its operating activities ([Usman, Lestari, & Puspa, 2019](#)). [Andersen and Juelsrud \(2024\)](#) further describe CAR as a regulatory metric that reflects a bank's stability and ability to withstand economic shocks, with higher capital adequacy

levels being associated with greater financial resilience. Under OJK Regulation No. 27 of 2022, Indonesia's adoption of the Basel III standards, every commercial bank must hold a CAR of at least 12 percent relative to its Risk-Weighted Assets (RWA).

The strategic importance of maintaining adequate capital is further underscored by evidence from the digital era [Hidayat and Kartawinata \(2023\)](#), who found that the emergence of fintech companies led to a statistically significant increase in banks' average CAR from 19.90% to 20.55%, indicating that banks proactively strengthened their capital buffers in response to growing competitive pressure. Consistent with signalling theory, a high CAR constitutes a positive safety signal that enhances investor confidence and should, therefore, exert a positive influence on the P/E ratio. This expectation is supported empirically by [Nusantara et al. \(2018\)](#) and [Iskandar et al. \(2020\)](#), who document a positive relationship between CAR and the P/E ratio.

H₃: Capital adequacy (CAR) has a significant positive effect on the price–Earnings Ratio (P/E ratio) in both Himbara and private banks

H₄: Profitability (ROE), solvency (DAR), and capital adequacy (CAR) jointly have a significant effect on the price–Earnings Ratio (P/E ratio) of both Himbara and private banks

2.5 Conceptual Framework

The conceptual framework of this study posits that the P/E ratio (dependent variable) is simultaneously influenced by three independent variables: profitability, operationalized as ROE (*H₁*); solvency, operationalized as DAR (*H₂*); and capital adequacy, operationalized as CAR (*H₃*). The combined simultaneous effect of these three variables on PER is captured by *H₄*. All relationships are examined separately for Himbara and private banks to account for the ownership structure's role as a contextual factor.

3. Research Methodology

3.1 Population and Sampling Technique

This study employed a quantitative approach within a comparative descriptive research design. As noted by [Agustianti et al. \(2022\)](#), quantitative inquiry rests on a positivist philosophical foundation, relying on statistical tools to evaluate hypotheses established prior to data collection. Secondary data, comprising annual financial statements drawn from the IDX official website and each bank's published annual reports, were gathered for 2015–2024. Sample selection followed a purposive sampling procedure guided by the following criteria:

1. The banks belonging to the Himbara group are Bank Mandiri, Bank Rakyat Indonesia (BRI), Bank Negara Indonesia (BNI), and Bank Tabungan Negara (BTN). This group yielded 40 observations (4 banks × 10 years).
2. Private national banks with large asset bases that have consistently published complete financial statements throughout the observation period are Bank Central Asia (BCA), Bank CIMB Niaga, Bank OCBC NISP, Bank Permata, and Bank Danamon, yielding 50 observations (5 banks × 10 years).

Table 1. Sample population of private banks

No	Sampling Criteria	Total
1	Private banks listed on the IDX	30
2	Private banks with complete financial statements for the full study period (10 years)	12
3	Private banks ranked among the five largest by total assets	5
sample used as the research subject, based on the criteria and the amount of observational data in the study covering the period 2015–2024 (10 years × 5 banks) Final sample used as the research subject, based on the criteria and the amount of observational data in the study period 2015–2024 (10 years × 5 banks)		50

Based on the Table 1 criteria above, the total number of observations in this study is 90, consisting of 40 observations from Himbara banks and 50 observations from private banks for the period of 2015–2024.

3.2 Operational Definition and Measurement

The central aim of this study was to examine how the independent variables influence the dependent variable, both on an individual basis (partial effects) and as a combined set (simultaneous effect). PER is the dependent variable. The independent variables consist of three dimensions: profitability (X_1), operationalized through ROE; solvency (X_2), operationalized through DAR; and capital adequacy (X_3), operationalized through CAR. All relationships are examined comparatively across the Himbara and private bank groups.

3.2.1 Price Earnings Ratio

Price-Earnings Ratio (P/E ratio) compares a company's share price to its earnings per share (EPS), indicating the amount investors are willing to pay for each unit of profit generated by the company. The P/E ratio is widely used as a market valuation indicator to assess how the market values a company relative to its current earnings performance. A higher P/E ratio reflects stronger investor expectations regarding future earnings growth, profitability, and business prospects, while a lower P/E ratio may indicate lower growth expectations or potential undervaluation. This ratio enables comparisons among companies within the same industry and provides insights into the relationship between stock market valuation and corporate financial performance. Therefore, the P/E ratio serves as an important measurement tool for evaluating investor confidence and market expectations toward a company's future earning potential (Brigham & Houston, 2018). The P/E ratio was calculated as follows Formula 1.

$$PER = \frac{MarketPriceperShare}{EarningsperShare(EPS)} \quad (1)$$

3.2.2 Profitability

Return on Equity (ROE) measures a company's ability to generate net profit from the equity invested by shareholders. This ratio indicates the effectiveness of management in utilizing shareholders' funds to create earnings and reflects the level of return obtained from the company's internal capital resources. ROE is commonly used as an indicator of financial performance because it provides insight into how efficiently a company converts equity into profitability. A higher ROE indicates that the company is more effective in generating profits from available equity, while a lower ROE may suggest lower efficiency in utilizing shareholder capital or weaker profitability performance. Therefore, ROE provides important information regarding the company's ability to create value for shareholders and maintain sustainable financial performance (Munteanu & Ilie, 2021). ROE is calculated as Formula 2.

$$ROE = \frac{NetIncome}{TotalEquity} \times 100 \quad (2)$$

3.2.3 Solvency

Debt to Asset Ratio (DAR) measures the proportion of a company's total assets that are financed through debt or external liabilities. This ratio provides an indication of the company's financial leverage and reflects the extent to which a company relies on borrowed funds to support its asset structure. A higher DAR value indicates a greater proportion of assets financed by debt, which may imply higher financial risk due to increased obligations, while a lower DAR value suggests that the company relies more on equity financing and has a relatively lower debt burden. (Hasanatur et al., 2025). DAR calculated as Formula 3:

$$DAR = \frac{TotalLiabilities}{TotalAssets} \times 100 \quad (3)$$

3.2.4 Capital Adequacy Ratio

The Capital Adequacy Ratio (CAR) gauges the sufficiency of a bank's capital buffer to cover losses that may emerge from day-to-day operations, in line with the requirements set out by (Gharaibeh, 2023). CAR calculated as Formula 4:

$$CAR = \frac{BankCapital}{Risk - WeightedAssets} \times 100 \quad (4)$$

3.3 Data Analysis Method

To test the hypotheses, this study applies panel data regression estimated through EViews software using the model specification presented below Formula 5:

$$PER = \alpha + \beta_1 ROE + \beta_2 DAR + \beta_3 CAR + \epsilon \quad (5)$$

This analysis employs a process to determine the best estimation model among the Common Effects Model (CEM), Fixed Effects Model (FEM), and Random Effects Model (REM), selected using the Chow test, Hausman test, and Lagrange Multiplier (LM) test. Next, classical assumption tests were conducted, including a Normality Test using the Jarque-Bera test, followed by a Multicollinearity Test using the correlation matrix among independent variables for comparison, a Heteroscedasticity Test addressed through the EGLS Panel method with cross-section weights, and an Autocorrelation Test calculated using the Durbin-Watson Test. Hypothesis testing was performed using the t-test for partial testing and the F-test for simultaneous testing, with a significance level of 5% ($\alpha = 0.05$).

4. Results and Discussions

4.1 Descriptive Statistical Analysis

Table 2. Descriptive statistics of Himbara Banks

	Mean	Minimum	Maksimum	Sdt. Deviasi
ROE	0.162905	0.010000	0.298900	0.057981
DAR	0.835750	0.760000	1.020000	0.047657
CAR	0.713843	0.168000	1.508000	3.223343
P/E ratio	12.932500	4.600000	34.600000	5.653925

The descriptive statistics in Table 2 reveal that Himbara banks exhibited relatively stable financial performance throughout the study period. The mean profitability (ROE) of 16.29% with a low standard deviation of 0.058 indicates that the capacity to generate returns from equity was homogeneous and consistent across the group. The mean solvency (DAR) of 83.58%, with a minimum ranging from 76.00% to 102.00%, reflects the characteristic funding structure of Himbara banks, which is predominantly financed by third-party deposits rather than high-risk debt.

The Mean Capital Adequacy Ratio (CAR) of 71.38%, with a notably high standard deviation of 3.223, indicates considerable variation in capital management across individual Himbara banks, despite all institutions maintaining CAR levels well above the OJK-mandated minimum of 12%. The mean P/E ratio of 12.93× (range: 4.60× to 34.60×) reflects divergent investor perceptions of individual Himbara banks' prospects, fluctuating in tandem with economic cycles over the 2015–2024 period.

Table 3. Descriptive statistics of private banks

	Mean	Minimum	Maksimum	Sdt. Deviasi
ROE	0.111096	0.015500	0.383000	0.070380
DAR	0.805085	0.510000	0.897022	0.087330
CAR	0.233226	0.150000	0.357000	0.051596
P/E ratio	15.679600	5.880000	51.200000	9.188911

Based on the descriptive statistics in Table 3, private banks display greater heterogeneity than the Himbara group. The mean profitability (ROE) of 11.11% with a larger standard deviation of 0.070 suggests that earnings-generating capacity varies more widely across private banks, influenced by differences in business segmentation and strategy. The mean solvency (DAR) of 80.51% (range: 51.00%–89.70%) indicates greater dispersion in the funding structure relative to the Himbara group. The mean Capital Adequacy Ratio (CAR) of 23.32% with a relatively small standard deviation of 0.052 reflects a reasonably uniform capitalization level that is closer to, though still above, the regulatory minimum. The mean P/E ratio of 15.68× is higher than the Himbara group's 12.93×, and the substantially larger standard deviation of 9.189 (range: 5.88×–51.20×) indicates that investor perceptions of private banks are considerably more diverse and dynamic, likely driven by differences in management quality, business strategy, and long-term earnings growth expectations.

Based on descriptive statistics, the average P/E ratio of private banks (15.68 times) is higher than that of Himbara banks (12.93 times), indicating that investors assign a higher valuation to private banks, even though the average ROE of private banks (11.11%) is lower than that of Himbara banks (16.29%). This phenomenon is an interesting preliminary finding that is reinforced by the results of the panel data regression.

4.2 Classical Assumption Test

The normality test for Himbara banks using the Jarque–Bera statistic produced a probability value of 0.2709, which exceeded the 0.05 significance threshold. This result confirms that the regression residuals for the Himbara group were normally distributed Figure 2

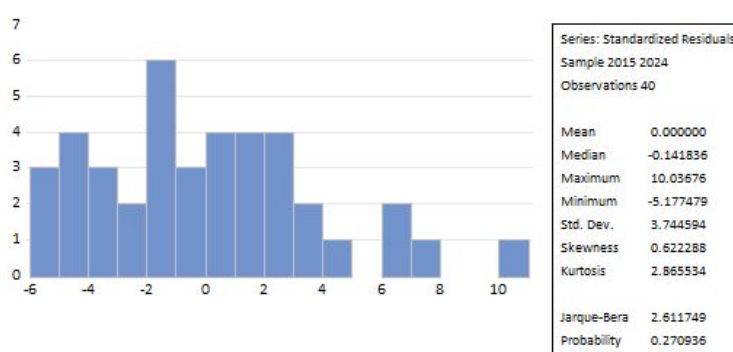


Figure 2. Himbara bank normality test result

The normality test for private banks using the Jarque–Bera statistic produced a probability value of 0.0000, which is less than 0.05. Therefore, the regression model residuals for the private bank group are not normally distributed. However, given that the sample size of 50 observations is sufficiently large, the Central Limit Theorem justifies proceeding with the analysis without correcting for non-normality Figure 3

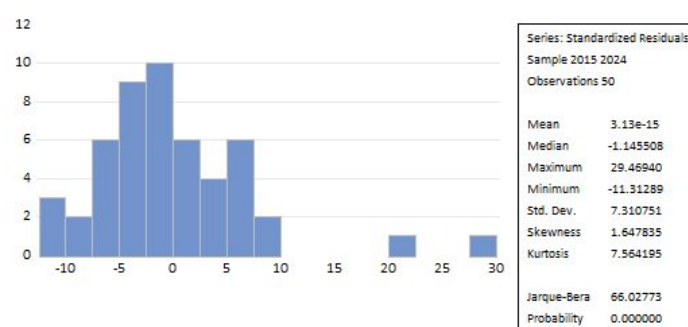


Figure 3. Normality test result of private bank

The multicollinearity diagnostic for both groups was conducted by examining the inter-variable correlation matrix Table 4 and Table 5. All pairwise correlation coefficients among ROE, DAR, and CAR were below the 0.80 threshold in both groups, confirming the absence of multicollinearity.

Table 4. Multicollinearity test results - Himbara Banks

	ROE	DAR	CAR
ROE	1.000.000	-0.299004	0.383004
DAR	-0.299004	1.000.000	0.047062
CAR	0.383004	0.047062	1.000.000

Table 5. Multicollinearity test results - private bank

	ROE	DAR	CAR
ROE	1.000.000	-0.362926	-0.113411
DAR	-0.362926	1.000.000	-0.211071
CAR	-0.113411	-0.211071	1.000.000

Heteroscedasticity was addressed in both groups through Panel EGLS (cross-section weights), which automatically corrects for heteroscedastic disturbances by applying differential weighting to each cross-sectional unit. This method ensures that the resulting coefficient estimates are efficient, and accordingly, both models satisfy the assumption of homoscedastic residuals (Figure 4). Autocorrelation was evaluated using the Durbin–Watson (DW) statistic. The results presented in Table 6 indicate that the Durbin–Watson value for Himbara banks is 1.8001 and for private banks is 1.9200, both of which fall within the inconclusive-free region between dU and 4–dU. These results confirm the absence of autocorrelation in either model Table 6.

Table 6. Autocorrelation test results - Himbara Banks and private banks

	Adj. R-Squared	Durbin-Watson
Himbara	0.481606	1.800131
Private Banks	0.185802	1.920023

4.3 Selection of Panel Data Regression Model

The Chow test for the left figure (Himbara banks) and the right figure (private banks) yielded cross-sectional F-statistic values of 0.0000 and 0.0222, respectively, both less than 0.05. This indicates that the Fixed Effects model is more appropriate than the Common Effects model; therefore, the Fixed Effects model was used for both groups Figure 5.

Redundant Fixed Effects Tests Equation: Untitled Test cross-section fixed effects				Redundant Fixed Effects Tests Equation: Untitled Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.	Effects Test	Statistic	d.f.	Prob.
Cross-section F	12.473081	(3,33)	0.0000	Cross-section F	3.196372	(4,42)	0.0222
Cross-section Chi-square	30.318360	3	0.0000	Cross-section Chi-square	13.287787	4	0.0100

Figure 5. Chow test result

The Hausman test results shown in the left figure (Himbara banks) and the right figure (private banks) yielded probability values of 0.0000 and 0.1724, respectively. These results Figure 6 indicate that the Fixed Effects Model is more appropriate for Himbara banks, while the Random Effects Model is more appropriate for private banks.

Correlated Random Effects - Hausman Test Equation: Untitled Test cross-section random effects				Correlated Random Effects - Hausman Test Equation: Untitled Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.	Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	37.419242	3	0.0000	Cross-section random	7.134817	3	0.677

** WARNING: estimated cross-section random effects variance is zero. ** WARNING: estimated cross-section random effects variance is zero.

Figure 6. Hausman test results

The Lagrange Multiplier test indicates that no further testing is required for Himbara banks, as the model was established using a Fixed Effects Model based on previous tests. Meanwhile, for private banks, a Breusch-Pagan probability value of 0.1909 was obtained, suggesting that a Common Effects Model is more appropriate; however, based on the Hausman test, the model used remains a Random Effects Model. However, in accordance with the hierarchical model selection procedure, the Random Effect Model selected via the Hausman Test was retained. In summary, the Fixed Effect Model is applied to Himbara banks, and the Random Effect Model is applied to private banks.

4.4 Panel Data Regression Model

To examine the effect of the proposed variables across different banking groups, panel data regression analyses were conducted separately for Himbara Banks and private banks. The regression results are presented in Table 7 and Table 8, respectively.

Table 7. Panel data regression analysis of Himbara Banks

Variables	Coefficient	t-Statistic	Prob.
C	-75.5661	-3.7391	0.0007
ROE	-31.5139	-2.3058	0.0275
DAR	112.1386	4.7539	0.0000
CAR	-0.1225	-0.5434	0.5905
R-squared	0.5614	F-stat	7.0387
Prob. F	0.0001	DW	1.8001

Table 8. Panel data regression analysis of private banks

Variables	Coefficient	t-Statistic	Prob.
C	24.3101	1.6717	0.1014
ROE	3.5159	0.204323	0.8390
DAR	-29.1738	-1.9343	0.0592
CAR	62.0270	2.918175	0.0054
R-squared	0.2356	F-stat	4.7273
Prob. F	0.0058	DW	1.9200

4.5 Discussion

ROE exerts a significant negative effect on the P/E ratio in Himbara banks (prob. = 0.0275; coefficient = -31.5139), while it had no significant effect on private banks (prob. = 0.8390). Therefore, H_1 is partially supported: it is confirmed for the Himbara group but not for the private bank group. The negative and significant finding for Himbara banks is consistent with [Melliana et al. \(2021\)](#), who documented an analogous relationship in the manufacturing sector. The underlying mechanism operates as follows: when Earnings Per Share (EPS) grow at a pace that exceeds share price appreciation, the P/E ratio is mathematically compressed. This pattern is especially evident among Himbara banks, given the distinctive characteristics of state-owned banks, whose loan portfolios are substantially allocated to government program lending at thin margins.

Consequently, even as ROE rises, the market does not respond with a proportionally higher share price appreciation. This institutional asymmetry is corroborated by [Manda and Sembiring \(2022\)](#), who confirm that for state-owned enterprises listed on the IDX, the relationship between profitability and capital market response differs markedly from that of privately owned firms, with investors assigning greater weight to ownership-related characteristics. Meanwhile, the non-significance of ROE on the P/E ratio for private banks is consistent with the findings of [Kurniawan et al. \(2020\)](#) and [Sudaryanti and Sahroni \(2016\)](#). This result is also in line with [Pennacchi and Santos \(2018\)](#) who found that banking investors respond more to the trajectory of ROE growth over time than to the level of ROE at any single point in time.

DAR exerts a significant positive effect on the P/E ratio in Himbara banks (prob. = 0.0000; coefficient = 112.1386), while it had no significant effect on private banks (prob. = 0.0592). H_2 is therefore rejected for both groups: the direction of the effect in Himbara banks is positive rather than the hypothesized negative, and the effect is non-significant in private banks. The positive and significant effect of DAR in Himbara banks contradicts the Trade-Off Theory as typically applied to non-financial corporations but is consistent with the findings of [Rahayu and Utami \(2024\)](#) and [Kurniawan et al. \(2020\)](#). This result can be explained through the structural characteristics of bank financing: in Himbara banks, the high DAR is predominantly attributable to third-party deposits, customer savings, and time deposits, which constitute the essential raw material of banking business rather than high-risk debt.

[Rismaya and Kasir \(2024\)](#) demonstrate that firms that effectively leverage debt to enhance profitability have a positive net impact on firm value. Furthermore, [Siswanti and Arvicano \(2026\)](#) provide empirical support showing that an expansion in third-party deposit funding significantly boosts the profitability of state-owned banks, confirming that, in this context, an increase in DAR signals business expansion rather than heightened default risk. The non-significance of DAR in private banks is consistent with [Syahputri \(2025\)](#), who finds that investors interpret high DAR as an inherent characteristic of the banking industry rather than an indicator of financial distress. This view is further supported by [Munandar, Romli, Aravik, and Simatupang \(2024\)](#), who similarly found that DAR has a negative and insignificant effect on market valuation in banking companies.

The test results reveal that CAR does not significantly influence the P/E ratio in Himbara banks (prob. = 0.5905), while it exerts a significant positive effect on private banks (prob. = 0.0054; coefficient = 62.0270). Therefore, H_3 is partially supported: it is confirmed for private banks but not for Himbara banks. This finding is consistent with [Metyka \(2023\)](#), who similarly found that CAR does not exert a significant influence on share prices. A plausible explanation is that all Himbara banks consistently maintain CAR levels substantially exceeding the OJK's 12% minimum, such that inter-bank variation in CAR no longer constitutes a differentiating signal for investors. [Gunawan \(2024\)](#) found that CAR has no significant partial effect on stock prices among large banks listed on the IDX for the 2013–2022 period, suggesting that once banks comfortably exceed the regulatory minimum, CAR loses its informational value as a market signal.

[Nusantara et al. \(2018\)](#) similarly argues that investors do not regard CAR as a primary measure of investment risk, perceiving it instead as a regulatory compliance indicator rather than a market quality

signal. The significant positive effect of CAR in private banks is consistent with the theoretical predictions of signalling theory and is supported empirically by [Sukarno, Ratnaningrum, Wahyuning, and Nurhapsari \(2025\)](#), who found that CAR has a positive and significant effect on firm value among IDX-listed banking companies for the period 2020–2023, confirming that banks with stronger capital adequacy are better positioned to absorb potential losses and are consequently rewarded with higher market valuations by investors. This is further reinforced by [Athayya and Yulazri \(2025\)](#), who confirm that CAR significantly influences firm value in IDX-listed banks, indicating that capital strength remains a meaningful valuation signal when inter-bank variations in capital levels are wide enough to differentiate risk profiles.

The simultaneous test results confirm that profitability (ROE), solvency (DAR), and capital adequacy (CAR) jointly have a significant effect on the Price-Earnings Ratio in both Himbara banks (F prob. = 0.0001) and private banks (F prob. = 0.0059). Although some individual variables are not significant within each group, the three variables together can explain changes in the P/E ratio in a statistically significant way. The R-squared value for Himbara banks (56.14%) is higher than that of private banks (23.57%), indicating that the P/E ratio in private banks is more strongly driven by external factors outside the model, such as market sentiment, long-term earnings growth expectations, and dividend policy.

This comparative finding confirms that the differences in ownership structure between Himbara and private banks produce distinctly different and at times opposing patterns of influence on the P/E ratio. Overall, the divergent patterns of influence between Himbara and private banks confirm that the bank ownership structure is a contextual factor that meaningfully mediates the relationship between fundamental financial variables and market valuation. This finding has a theoretical implication: applying a uniform stock valuation model to all banks without accounting for ownership differences risks producing misleading conclusions. The ownership-based comparative approach used in this study has proven to yield a more granular and scientifically meaningful understanding than studies that pool all listed banking companies into a single model, while also opening avenues for future research to explore moderating variables, such as bank size, foreign ownership, and dividend policy within the same framework.

5. Conclusions

5.1 Conclusions

The analysis and discussion presented above lead to the following conclusions. First, in Himbara banks, ROE has a significant negative effect on the price-to-earnings ratio because earnings per share grow faster than share price appreciation, and because Himbara banks, as state-owned institutions, orient a large portion of their lending toward government-directed programs. DAR has a significant positive effect because the high DAR in Himbara banks is primarily driven by third-party customer deposits, which signal positive business expansion rather than default risks. CAR has no significant effect because all Himbara banks maintain CAR levels well above the regulatory minimum threshold.

Second, in private banks, ROE has no significant effect because investors respond more to long-term earnings growth expectations than to the current ROE level. DAR has no significant effect because investors recognize a high DAR as an inherent characteristic of the banking sector. However, CAR has a significant positive effect because variations in CAR among private banks still provide a meaningful safety differentiation signal for investors. Third, all three variables jointly have a significant effect on the P/E ratio in both banking groups, with the model's explanatory power being higher for Himbara banks (56.14%) than for private banks (23.57%). This indicates that the P/E ratio in private banks is more strongly influenced by external factors outside the model, such as market sentiment, long-term earnings growth expectations, and dividend policy. This comparative finding confirms that the differences in ownership structure between Himbara and private banks produce distinctly different patterns of influence on the P/E ratio.

5.2 Research Limitations

Several limitations constrain the scope of this study. The analysis is limited to nine banks over a ten-year observation period, while macroeconomic factors such as inflation, benchmark interest rates, and exchange rate fluctuations are not incorporated as control variables. Furthermore, the model includes only three independent variables, leaving a substantial proportion of the variation in the Price-Earnings Ratio (PER), ranging from 43.86% to 76.43%, unexplained by the proposed framework.

5.3 Suggestions and Directions for Future Research

Subsequent research would benefit from widening the bank sample, integrating macroeconomic indicators as controls, introducing bank-specific metrics such as the Net Interest Margin (NIM) and Non-Performing Loan (NPL) ratio, and lengthening the study horizon to better reflect the full complexity of market behavior over time.

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Author Contributions

ZTK contributed to the conceptualization, study design, data collection, data analysis using EViews, interpretation of results, manuscript drafting, and revision. AMH contributed through supervision, validation of the research methodology, critical review of the manuscript content, and final approval of the submitted version. All authors have read and approved the final manuscript.

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