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The Effect Of Capital Adequacy Ratio And Loan To Deposit Ratio On Stock Prices Study Of Banking Companies Listed On The Indonesia Stock Exchange (IDX) In 2020–2024

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Abstract: *The capital market has an important role in supporting economic activities by providing long-term funding sources for companies as well as an investment vehicle for the public. The development of the banking sector in Indonesia shows that financial performance often influences stock price movements, although the results are not always consistent between companies. This problem encourages this study which aims to analyze the effect of the Capital Adequacy Ratio (CAR) and the Loan to Deposit Ratio (LDR) on stock prices in banking companies listed on the Indonesia Stock Exchange for the 2020–2024 period. This study uses a quantitative approach with a multiple linear regression method through the assistance of the SPSS application, while the sample is determined by a purposive sampling technique in 16 banking companies over 5 years of observation, resulting in 80 observations. The results of the study show that CAR has a significant negative effect on stock prices (t = -2.482 sig = 0.015), while LDR has a significant negative effect on stock prices (t = -2.846 sig = 0.006). The coefficient of determination (R^2) value is 0.162, which means that 16.2% of the variation in stock prices can be explained by CAR and LDR, while the remaining 83.8% is explained by other factors outside the model. This study supports the Signaling Theory which states that financial performance information can provide signals to investors in making investment decisions. This finding confirms that the bank's ability to maintain capital adequacy provides a positive signal to investors, while liquidity management through LDR has not been fully considered as the main factor determining stock prices.*
Keywords: *Capital Adequacy Ratio, Loan To Deposit Ratio, Stock Price.*

INTRODUCTION

Banking financial performance plays a crucial role in maintaining financial system stability and determining shareholder value. As intermediary institutions, banks channel funds from those with surpluses to those with deficits, thus supporting economic activity while maintaining public trust (Setiawan et al., 2020). Various indicators are used to assess bank health, including the Capital Adequacy Ratio (CAR) and the Loan-to-Deposit Ratio (LDR). The CAR reflects a bank's ability to cover potential losses using its capital, while the LDR illustrates the bank's effectiveness in managing liquidity and disbursing credit. These two ratios not only determine bank health but also

serve as important signals for investors in assessing the prospects of banking stocks (Kurniawan, 2017; Brigham & Houston, 2019).

Several previous studies have examined the relationship between financial ratios and stock prices. Marcelino Leo et al. (2023) used regression analysis and found that CAR and LDR had no significant effect on stock prices. Conversely, Saputri's (2023) study, using a similar method, concluded that both ratios had a simultaneous effect on stock price movements. These discrepancies in findings indicate limitations in terms of the observation period, sample selection, and market conditions used, resulting in inconsistent relationships between CAR, LDR, and stock prices.

Research problems arise when theoretical perspectives, such as Signaling Theory (Brigham & Houston, 2019), assert that increasing CAR and effective LDR management should send positive signals to the market, which in turn increases stock value. However, empirical evidence does not always support this theory. Data from Bank Ganesha Tbk for the 2020–2024 period shows a contradictory phenomenon, where increases in CAR and LDR are not always followed by increases in stock prices.

To address this question, this study employs a quantitative approach with secondary data in the form of annual financial reports of banks listed on the Indonesia Stock Exchange (IDX) for the period 2020–2024. The analysis was conducted using multiple linear regression with the aid of SPSS software, thus providing stronger empirical evidence regarding the influence of CAR and LDR on bank stock prices in Indonesia. This research makes three main contributions. First, it presents the latest empirical evidence on the influence of CAR and LDR on banking stock prices in Indonesia in the post-pandemic period. Second, it enriches the literature by extending the analysis period to 2024 to address inconsistencies in previous research. Third, it provides practical implications for investors and regulators in evaluating the financial health and stock market valuation of the banking sector.

METHOD

This study employs a quantitative research method with an associative research design aimed at examining the influence of the Capital Adequacy Ratio (CAR) and Loan to Deposit Ratio (LDR) on stock prices of banking companies listed on the Indonesia Stock Exchange (IDX) during 2020–

2024. Quantitative research was chosen because it allows systematic measurement and statistical analysis of numerical data to test hypotheses and determine the strength and direction of relationships between variables (Creswell, 2014; Anshori & Iswati, 2020).

The population of this study consists of all banking companies listed on the IDX during the 2020–2024 period. Using a purposive sampling technique, 16 banks were selected based on the availability of complete financial statements and continuous listing throughout the observation period, resulting in a total of 80 observations. The dependent variable in this study is the stock price, while the independent variables are CAR and LDR. The operational definitions are as follows: CAR represents the ratio of bank capital to risk-weighted assets, reflecting a bank's ability to cover potential losses (Dendawijaya, 2005; Kasmir, 2019), and LDR represents the ratio of loans to customer deposits, indicating liquidity management efficiency (Brigham & Houston, 2019; Fitri et al., 2025).

Data collection relied on secondary data obtained from the annual financial reports of the selected banks and the IDX database. To analyze the data, this study applied multiple linear regression analysis using the SPSS software (version 29) to test both the partial (t-test) and simultaneous (F-test) effects of CAR and LDR on stock prices (Ghozali, 2018). The regression model can be formulated as follows:

$$\text{Stock Price}=\alpha+\beta1(\text{CAR})+\beta2(\text{LDR})+\epsilon$$

Where:

- α = constant
- $\beta1,\beta2$ = regression coefficients
- ϵ = error term

Before hypothesis testing, classical assumption tests were conducted, including multicollinearity, heteroscedasticity, and normality tests to ensure the validity of the regression model (Ghozali, 2018; Kurniawan, 2017). The coefficient of determination (R^2) was used to measure the proportion of variance in stock prices explained by CAR and LDR.

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RESULT AND DISCUSSION

Descriptive Analysis

This study uses secondary data in the form of financial reports from 16 banking companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2024 period, resulting in 80 observations. Data analysis was performed using SPSS version 29 software using multiple linear regression analysis. The aim was to determine the effect of the Capital Adequacy Ratio (CAR) and the Loan to Deposit Ratio (LDR) on stock prices in Indonesian banking companies.

Variables	Minimum	Maximum	Mean	Standard Deviation
Capital Adequacy Ratio	,1050	3,1038	,484508	,5573328
Loan to Deposit Ratio	,0068	3.4264	,876034	,7121633
Stock price	1	5725	797.42	1450,363

***Table 1**. AnalysisDescriptive Statistics*

For the CAR variable, the average value of 0.4845 is above the minimum limit stipulated by Bank Indonesia of 8%, indicating that banks generally have a good level of capital adequacy. The standard deviation of 0.5573 indicates a significant variation between banks in maintaining their capital ratios. For the LDR variable, the average of 0.8760 is still within the healthy limit of 78%–92%, indicating banks' ability to channel funds quite efficiently, with a standard deviation of 0.7121 indicating a fairly wide difference in liquidity between banks. Meanwhile, for the Stock Price variable, the average of 797.42 with a standard deviation of 1450.363 reflects a significant difference in stock value between banks, where some banks have much higher stock prices than others.

Multicollinearity Test

The multicollinearity test aims to test whether there is a correlation between independent variables in the regression model.

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Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	CAPITAL ADEQUACY RATIO	,998	1,002
	LOAN TO DEPOSIT RATIO	,998	1,002

a. Dependent Variable: HARGA SAHAM

Table 2. *Multicollinearity Test Results*

The results of the multicollinearity test show that the Tolerance value for the Capital Adequacy Ratio (CAR) and Loan to Deposit Ratio (LDR) variables are each 0.998, while the VIF value is 1.002. Based on Ghozali's (2018) criteria, where the Tolerance value is greater than 0.10 and the VIF value is less than 10, it can be concluded that there is no multicollinearity between the independent variables. Thus, the regression model used in this study is declared feasible because the independent variables are not strongly correlated with each other.

Heteroscedasticity Test

The heteroscedasticity test aims to determine whether there is inequality in the variance of the residuals in the regression model.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1531,058	181,048		8,457	,000
	CAPITAL ADEQUACY RATIO	-453,515	182,735	-,259	-2,482	,015
	LOAN TO DEPOSIT RATIO	-407,043	143,007	-,297	-2,846	,006

a. Dependent Variable: ABRESID

Table 3.*Heteroscedasticity Test Results*

Based on the test results using the Glejser method, the significance value (Sig.) for the Capital Adequacy Ratio (CAR) variable was 0.015 and for the Loan to Deposit Ratio (LDR) was 0.006. Since both significance values are less than 0.05, it can be concluded that the regression model experiences heteroscedasticity. Thus, there is inequality in error variance between observations, indicating that the regression model does not fully meet the classical assumption of homoscedasticity.

Persial Test (t-Test)

The Persian test (t-test) is used to assess the influence of each independent variable individually on the dependent variable.

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a. Dependent Variable: ABRESID

Table 4.*Persian Test Results*

Based on the t-test results, the Capital Adequacy Ratio (CAR) variable has a t-value of -2.482 with a significance level of 0.015 <0.05, indicating that CAR has a significant and negative effect on stock prices. This means that the higher the CAR, the lower the stock price because investors believe that excessive funds allocated as capital can reduce the potential for credit expansion. The Loan to Deposit Ratio (LDR) variable has a t-value of -2.846 with a significance level of 0.006 <0.05, indicating that LDR also has a significant and negative effect on stock prices. This indicates that the higher the LDR, the greater the liquidity risk and can reduce investor confidence in the bank's performance.

Simultaneous Test (F Test)

The Simultaneous Test (F Test) is used to determine whether all independent variables together have a significant effect on the dependent variable.

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12195802	2	6097901,066	7,456	,001[a]
	Residual	62971577	77	817812,695		
	Total	75167380	79			

a. Predictors: (Constant), LOAN TO DEPOSIT RATIO, CAPITAL ADEQUACY RATIO
b. Dependent Variable: ABRESID

Table 5. *Simultaneous Test Results*

Based on the F-test results in the ANOVA table, the calculated F-value was 7.456 with a significance level of 0.001 < 0.05. This indicates that the Capital Adequacy Ratio (CAR) and Loan to Deposit Ratio (LDR) variables simultaneously have a significant effect on stock prices in banking companies listed on the Indonesia Stock Exchange (IDX) for the 2020–2024 period.

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Test of the R2 Determination Coefficient

The R2 Determination Coefficient Test is usedto measure how far the model's ability to explain variations in dependent variables that are influenced by independent variables.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,403[a]	,162	,140	904,32997

a. Predictors: (Constant), LOAN TO DEPOSIT RATIO, CAPITAL ADEQUACY RATIO

Table 6. *Results of the Determination Coefficient Test*

Based on the results of the coefficient of determination (R^2) test in the Model Summary table, the R Square value was obtained at 0.162 or 16.2%, which means that the Capital Adequacy Ratio (CAR) and Loan to Deposit Ratio (LDR) variables simultaneously were able to explain changes that occurred in stock prices by 16.2%. Meanwhile, the remaining 83.8% was explained by other variables outside this study, such as macroeconomic conditions, company policies, and other external factors. The Adjusted R Square value of 0.140 indicates that after adjusting for the number of independent variables, the model's ability to explain the dependent variable remains in the weak to moderate category, so there are still other factors that influence stock prices outside this research model.

Discussion

The findings of this study demonstrate that both Capital Adequacy Ratio (CAR) and Loan to Deposit Ratio (LDR) significantly influence stock prices in Indonesian banking companies, but their effects are negative. A higher CAR, while indicating a strong capital buffer, may signal to investors that banks are holding excess capital rather than using it efficiently for profit-generating activities, which reduces stock prices (Brigham & Houston, 2019; Dendawijaya, 2005; Kasmir, 2019). Similarly, a high LDR can be interpreted as aggressive lending or risky credit management, which may decrease investor confidence (Hatimah et al., 2024; Fitri et al., 2025; Dimas & Suharto, 2022). These findings support the signaling theory, which suggests that financial ratios convey information to investors that affects their investment decisions (Brigham & Houston, 2019; Anshori & Iswati, 2020). However, contrary to the expectation that higher CAR would reassure

investors, the results indicate that market perception in Indonesia emphasizes profitability and efficient fund allocation over mere capital adequacy (Hutabarat, 2021; Salisa Dwi Ceysa et al., 2020).

This negative relationship aligns with prior studies. Latif et al. (2021) and Saputri (2023) also found that high CAR and LDR can reduce market confidence, while Marcelino Leo et al. (2023) reported no significant effect, highlighting the contextual differences in investor responses over time and under varying market conditions. The R^2 value of 16.2% in this study indicates that CAR and LDR explain a modest portion of stock price variation, suggesting that other factors such as macroeconomic conditions, company-specific policies, and investor sentiment contribute to the remaining 83.8% (Darmadji & Fakhruddin, 2012; Purnomo, 2011; Setiawan et al., 2020; Kurniawan, 2017). This demonstrates that CAR and LDR provide useful signals but are insufficient to fully predict stock prices.

From a managerial perspective, banks should balance capital adequacy and lending practices to maintain investor confidence without compromising financial stability (Hutabarat, 2021; Utomo & Pratama, 2020). Holding excess capital may indicate inefficiency, while overly aggressive lending increases credit risk, which can reduce stock valuation (Latif et al., 2021; Dimas & Suharto, 2022). Investors should analyze CAR and LDR in conjunction with other performance metrics, such as profitability ratios like Return on Equity (ROE) and net interest margin, to make informed decisions (Purnomo, 2011; Anshori & Iswati, 2020; Fitri et al., 2025).

This study contributes to the literature on the application of signaling theory in emerging markets, particularly Indonesia. Unlike developed countries where high CAR is consistently viewed positively, Indonesian investors may prioritize short-term returns and efficient liquidity management when evaluating banking stocks (Salisa Dwi Ceysa et al., 2020; Saputri, 2023; Marcelino Leo et al., 2023). This suggests that investor behavior in emerging markets may be influenced by cultural and economic factors, which can guide regulators and banking institutions in policy and risk management (Hutabarat, 2021; Utomo & Pratama, 2020).

While the study provides important insights, several limitations exist. The focus on 16 banking companies over five years may limit generalizability, and additional variables such as Non-Performing Loans (NPL) and Debt-to-Equity Ratio (DER) could further clarify stock price determinants (Latif et al., 2021; Fitri et al., 2025). Future research could also investigate

macroeconomic factors as moderators in the CAR and LDR-stock price relationship (Darmadji & Fakhruddin, 2012; Setiawan et al., 2020). Despite these limitations, this study highlights that ineffective capital allocation and liquidity management can negatively influence stock prices, offering guidance for both investors and bank management in optimizing financial performance (Anwar et al., 2023; Sari & Handayani, 2021).

CONCLUSION

This study examines the effect of the Capital Adequacy Ratio (CAR) and Loan to Deposit Ratio (LDR) on stock prices of banking companies listed on the Indonesia Stock Exchange during the 2020–2024 period. Based on the results of multiple linear regression analysis, both CAR and LDR are found to have a statistically significant and negative effect on stock prices, both partially and simultaneously. These findings indicate that higher levels of capital adequacy and liquidity utilization do not necessarily translate into higher market valuation of banking stocks. A high CAR, while reflecting a strong capital buffer and regulatory compliance, may signal inefficient capital allocation and limited credit expansion, which can reduce expected returns from the perspective of investors. Similarly, an elevated LDR may be interpreted as aggressive lending behavior that increases liquidity and credit risk, thereby weakening investor confidence. The coefficient of determination (R^2) of 16.2% further suggests that CAR and LDR explain only a modest proportion of stock price variation, while the majority is influenced by other internal and external factors beyond the scope of this study.

From a theoretical perspective, the results provide partial support for signaling theory, as financial ratios are shown to convey information that influences investor behavior, although the direction of the signal may differ from conventional expectations. In practical terms, the findings imply that banking institutions should not focus solely on maintaining high capital and liquidity ratios, but also ensure that these financial resources are managed efficiently to generate sustainable profitability and shareholder value. For investors, the results highlight the importance of evaluating CAR and LDR in conjunction with other indicators such as profitability, asset quality, and macroeconomic conditions when making investment decisions. Policymakers and regulators may also consider encouraging banks to balance prudential requirements with productive fund allocation to support economic growth without undermining market confidence. Future research

is recommended to incorporate additional variables, longer observation periods, and macroeconomic factors in order to obtain a more comprehensive understanding of the determinants of banking stock prices in emerging markets such as Indonesia.

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