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The Effect of Return on Risk Assets (RORA), Loan To Deposit Ratio (LDR) and Capital Adequacy Ratio (CAR) on Stock Prices (Empirical Study on Banking Sector Companies on the Indonesia Stock Exchange in 2020-2023)

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Abstract: This study aims to determine the effect of Capital Adequacy Ratio (CAR), Loan To Deposit Ratio (LDR), Return On Risk Asset (RORA), on Stock Prices (Empirical Study of Banking Sector Companies on the Indonesia Stock Exchange 2020-2023). The approach used in this study uses a quantitative research approach, namely data that can be measured on a numerical scale. The data source used in this study is secondary data, this study has a population of 47 banking companies and a sample of 42 banking companies This research was tested using panel data analysis which was processed using Eviews Version 13. The results of this study are Return On Risk Asset (RORA) & Loan To Deposit Ratio have no effect on the price of banking shares listed on the IDX in 2020-2023, while the Capital Adequacy Ratio (CAR) affects the price of banking shares on the IDX in 2020-2023. The results of this study are expected to benefit decision makers in the banking sector, including bank executives, regulators, and investors. They can use these results as a basis for making strategic decisions regarding risk management, capital allocation, and investment decisions.

Keyword: Capital Adequacy Ratio (CAR), Loan To Deposit Ratio (LDR), Return On Risk Asset (RORA), Stock Price

INTRODUCTION

The existence of the banking sector makes an important contribution to the country's financial condition. This is because banks play a role in economic stability. One of the main activities of banks is to build trust among their customers and enable them to collect and distribute funds efficiently.

Changes in stock prices in the capital market can be attributed to the interaction between supply and demand. In the capital market, changes in stock prices make the capital market attractive to some investors. On the other hand, fundamental, psychological, or external factors can cause stock prices to rise and fall. There are several macro factors that affect stock investment activities on the Indonesia Stock Exchange, such as inflation, bond yields, foreign exchange rates, and others (Choiriyah et al., 2021).

In early 2020, the covid 19 phenomenon caused market uncertainty, business closures including a decline in demand. The government issued policies regarding mobility restrictions such as the Implementation of Large-Scale Social Restrictions (PSBB), the Enforcement of Restrictions on Community Activities (PPKM), and travel restrictions to reduce virus transmission, which then led to a decline in domestic demand as well as production and investment activities. Economic growth in Q2 2020 contracted by 5.32% (yoy), after growing slower by 2.97% (yoy) in Q1 2020 (Saraswati et al., 2020).

In 2020 the government issued Regulation of the Financial Services Authority of the Republic of Indonesia Number 48 /POJK.03/2020 concerning Amendments to Financial Services Authority Regulation Number 11/POJK.03/2020 concerning the national economic stimulus program as a countercyclical policy Impact of the spread of the 2019 corona virus disease which aims to strengthen financial stability, improve bank credit quality, encourage national economic growth. Credit restructuring is defined as an effort to resolve non-performing loans by banks to debtors affected by the spread of Coronavirus Disease 2019 (COVID-19). This credit restructuring is expected to have an impact on improving the quality of banking credit and decreasing non-performing loans, increasing investor confidence in the banking sector and supporting financial stability (Peraturan OJK Nomor 48 Tahun 2020, 2020).

The Composite Stock Price Index (JCI) fell 30.02 points or weakened 0.43% to 6,924.78 at the close of trading on Friday (8/9/2023). Bank Rakyat Indonesia Tbk (BBRI) shares fell 1.83% today, followed by banking stocks coded BBNI and BBCA, which corrected 1.32% and 0.54% respectively. The weakening of the index today was affected by several weakening banking stocks (Nabilah, 2023).

Information plays an important role in stock trading, especially for investors who will invest in the capital market. The rapidly increasing number of companies that have gone public is an indication that the capital market is developing very quickly (Mareta, 2015). Therefore, investors must pay more attention to various financial performances before making a decision to buy shares.

Return on Risk Assets (RORA) is a ratio that compares operating income with the amount of risk assets (total loans and investments) owned. A healthy RORA value is more than 7.85% in accordance with Bank Indonesia regulations (Maliki & Apandi, 2022). A high RORA indicates that the bank can generate high income with a controllable level of risk so that the profits earned will also be optimal and can have an impact on rising stock prices (Amalia, 2023).

Based on research (Tenika & Muchtar, 2024) states that the variable Return on Risk Assets (RORA) has no effect on the share price of banking companies listed on the Indonesia Stock Exchange. And based on research from (Harianja et al., 2021) Return On Risk Assets (RORA) has a positive effect on the share price of banking companies on the Indonesia Stock Exchange.

LDR refers to the ratio of loans to bank deposits. This ratio is calculated by dividing total bank loans by total bank deposits. A high LDR may indicate that the bank is channeling more funds in the form of loans compared to funds deposited in the form of deposits. Therefore, LDR that is too high can increase the risk of the bank because the bank has less funds to fulfill its obligations.

Loan to Deposit Ratio, hereinafter abbreviated as LDR, is the ratio between loans granted to third parties in Rupiah and foreign currencies, excluding loans to other banks, to third party funds deposited in current accounts, savings, and deposits in Rupiah and foreign currencies excluding interbank funds, the lower limit of LDR target is 78% and the upper limit of LDR target is 92% (*Peraturan Bank Indonesia Nomor 15/7/PBI/2013 Tentang Perubahan Kedua Atas Peraturan Bank Indonesia Nomor 12/19/PBI/2010 Tentang Giro Wajib Minimum Bank Umum Pada Bank Indonesia Dalam Rupiah Dan Valuta Asing*, 2013).

The amount of credit disbursed can determine the bank's profit. If the bank has a low level of liquidity, then the bank's income will also decrease. Decreased bank income makes bank profits also experience a decline (Rizky Kusuma Kumaidi & Nadia Asandimitra, 2017).

Based on previous research conducted by (Novita, 2022) states that Loan Deposit Ratio (LDR) has a positive but insignificant effect on stock prices, and based on research conducted by (Agustin & Wijaya, 2023) states that Loan To Deposit Ratio affects stock prices in banking companies that go public on the Indonesia Stock Exchange.

CAR indicates the adequacy of a bank's capital to bear risk. This ratio is calculated by dividing the bank's capital to risk assets. A high CAR indicates that the bank has sufficient capital to cover the risks that may occur. Low CAR can increase bank risk because banks do not have enough capital to cover losses. Based on previous research conducted by (Novita, 2022) states that the Capital Adequacy Ratio (CAR) has a positive but insignificant effect on stock prices, but based on research from (Agustin & Wijaya, 2023) states that CAR has no effect on stock prices in banking companies listed on the Indonesia Stock Exchange (BEI).

Stock price is the price listed on the capital market at a certain time, the stock price can change drastically in a short time, it can even change in seconds (Sari et al., 2022). In this study, the stock price used is the closing price, because this closing price shows the ups and downs of stock prices (Riyadi & Setyawan, 2018).

The Indonesian capital market has experienced significant development, reflecting the dynamics of the country's economy. Stock price is an important indicator in assessing the financial performance of a company, which is influenced by the interaction between sellers (issuers) and buyers (investors) on the IDX (Demitria Olla & Mareta, 2023).

It can be concluded that RORA, LDR and CAR are interrelated. High RORA can be achieved by increasing LDR. However, high LDR can also increase bank risk. Therefore, banks must maintain a balance between RORA and LDR. High CAR can help banks reduce risk. Based on the gap analysis of previously conducted research, the researchers tried to review it again by taking the title "The Effect of Return On Risk Asset (RORA), Loan To Deposit Ratio (LDR), Capital Adequacy Ratio (CAR) on Stock Prices, (Empirical Study on Banking Sector Companies on the IDX in 2020-2023)".

The objectives of this study; To determine the effect of Return on Risk Assets (RORA) on the price of banking shares on the Indonesia Stock Exchange in 2020-2023 ; To determine the effect of Loan To Deposit Ratio (LDR) on the share price of banks on the Indonesia Stock Exchange in 2020-2023 ; To determine the effect of Capital Adequacy Ratio (CAR) on the share price of banks on the Indonesia Stock Exchange in 2020-2023.

METHOD

Signaling theory is a theory of how parties with different information communicate with each other. It explains how parties with more information (senders) can convey that information to parties with less information (receivers) through actions or signals, (Spence, Michael. "Job Market Signaling." The Quarterly Journal of Economics 87.3 (1973): 355-379.)

The framework in this study is described as follows:

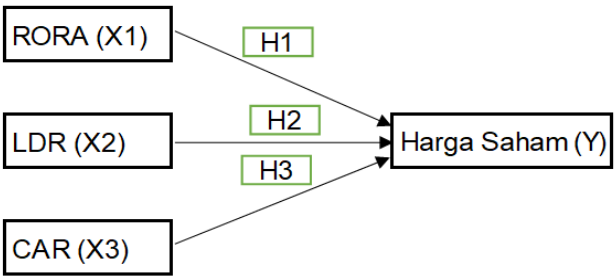

Figure 1. Conceptual Framework

RORA measures the bank's ability to optimize the investment of its assets to generate profits. A high RORA value indicates that the income received by the bank is high so that the profit earned is also optimal and can affect the increase in stock prices. Based on research from (Tenika & Muchtar, 2024) & (Lule & Tamboto, 2015)states that Return On Risk Asset (RORA) has no significant effect on banking stock prices. According to research from (Harianja et al., 2021) Return On Risk Asset RORA has a positive but insignificant effect on stock prices. Meanwhile, according to . Based on this description, the proposed hypotheses are:

H1 : Return on Risk Asset (RORA) has a positive effect on Stock Price.

To measure banking liquidity, it usually uses the Loan To Deposit Ratio (LDR), this ratio is used to assess the liquidity of a bank. A high LDR indicates that the risk in investing is high, it can reduce the level of investor confidence which can affect stock prices. Based on research from (Agustin & Wijaya, 2023) & (Novita, 2022) stated that Loan To Deposit Ratio (LDR) affects stock prices. Based on this description, the proposed hypothesis is:

H2 : Loan To Deposit Ratio (LDR) has a positive effect on stock prices

The higher the CAR value, the better the bank's ability to bear the risk of each risky productive asset or credit. To be considered healthy, the minimum CAR value according to Bank Indonesia is 8%. The higher the CAR value, it can increase investor confidence and can affect stock prices. Based on research from (Novita, 2022) & (Riyadi & Setyawan, 2018) states that CAR has a significant effect on banking stock prices. Based on this description, the proposed hypothesis is:

H3 : Capital Adequacy Ratio (CAR) has a positive effect on stock prices.

This research was conducted by taking a sample of banking sub-sector companies listed on the Indonesia Stock Exchange (IDX) in 2020 - 2023 by taking data through the website www.idx.co.id. This study uses quantitative research methods, quantitative research is defined as a systematic study of phenomena by collecting data that can be measured using statistical, mathematical or computer techniques (Fadilla et al., 2022).

This study uses secondary data where information is obtained indirectly from the object of research, but through other sources that are already available such as through the official website of www.idx.co.id, using secondary data is expected to save more time and not incur large costs in conducting research..

In this study, the authors will take a population of banking companies listed on the Indonesia Stock Exchange in the 2020-2023 period with a total of 47 registered banking companies. The sample is part of the total population that exists to be studied. In this study, we will use purposive sampling method, which is a method of sampling from population members based on certain criteria and the aim of obtaining a representative sample. The criteria that must be met for sampling are: Banking companies that IPO and are listed on the Indonesia Stock Exchange during the period 2020-2023, banking companies that publish annual financial reports 2020 - 2023 and complete on the website www.idx.id. Based on these criteria, a sample of 45 banking companies was selected.

The data analysis method used in this study is to use the panel data regression analysis method which is processed using the help of the Eviews Version 13 application. The panel data regression method consists of data obtained from a combination of time series and cross-sectional data.

There are three alternative processing approaches that can be used for panel data regression estimation, namely: common effect, fixed effect, and random effect. From the three panel data regression model approaches, the best model was selected to be used in this study

(Riyadi & Setyawan, 2018). Determining the most appropriate model among the Common Effect, Fixed Effect and Random Effect models consists of several stages, including Chow test, Hausman test, and Lagrange Multipiler (LM) Test.

Hypothesis testing consists of The coefficient of determination test is carried out to determine how far or how much the variation in the independent variable can explain well the variation in the dependent variable; The Anova F test is conducted to determine whether the independent variables together have a significant effect in influencing the dependent variable; The t statistical test is used to determine whether the independent variable (X) has a significant effect on the dependent variable (Y).

RESULTS AND DISCUSSION

The following tests were conducted to determine the most appropriate panel data regression model;

Chow Test

Table 1. Chow Test Results

Redundant Fixed Effect Test Test cross-section fixed effects			
Effect Test	Statistic	d.f	Prob
Cross-section F	10,809696	(44,132)	0,0000
Cross-section Chi-square	274,816566	44	0,0000

Source: Eviews 13 output, data processed by the author 2024

Based on the results of the chow test in table, it can be seen that the result of the prob value on the chi-square is 0.000, which means less than the α value (0.05), so it can be concluded that H0 is rejected and Ha is accepted. From this test, it can be concluded that the selected model, namely fixed effect (FEM), is better used in estimating the panel data regression method than the common effect model. Based on the selected model, it can proceed to the Hausman Test.

Hausman Test

Table 2. Hausman Test Result

Correlated Random Effects - Hausman Test Test cross section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f	Prob
Cross-section random	1,3070	3	0,7275

Source: Eviews 13 output, data processed by the author 2024

Based on the results of the Hausman Test, it shows that the F probability value of 0.7275 is greater than the α value of 0.05, which means that H0 is accepted and Ha is rejected, so the best model uses a random effect model to estimate the panel data regression method compared to the fixed effect model.

Lagrange Multipiler Test

Table 3. Lagrange Multipiler Test Results

Lagrange Multiplier Tests for Random Effects Alternative hyphotheses: Two-sided (Breusch-Pagan) and one sided (all other) alternatives			
Cross-section		Test Hypothesis Time	Prob
Breusch-Pagan	133,6731	0,457771	134,1308
	(0,0000)	(0,4987)	(0,0000)

Source: Eviews 13 output, data processed by the author 2024

Based on the results of the Breaush Pagan test (LM Test), the probability value of F and Breuchs Pagan is 0.0000, which means it is smaller than (α = 0.05). Then this Lagrange Multiplier Test shows that accepting H1, which means Random Effect is the best estimation method compared to the Common Effect model.

Based on the 3 tests that have been carried out, the Random Effect (REM) model is the best. Therefore, to perform regression analysis, you can use the Random Effect (REM) Model.

Panel Data Regression Analysis Test

After all stages to assess the panel data model have been fulfilled, in this study the selected model is the random effect model. The next step is to conduct panel data regression analysis by analyzing the coefficient value of the resulting regression.

Table 4. Panel Data Regression Analysis Test Results

Dependent Variable : Y Method: Panel EGLS (Cross-section random effects) Sample: 2020-2023 periods included: 4 Cross-sections included: 45 Total panel (balanced) observations: 180		
Panel Data Regression		
Variable	Coefficient	Std.Error
C	1.305,012	574,6909
RORA	-28,72521	36,12648
LDR	1,511718	3,291809
CAR	18,02678	5,89504

Source: Eviews 13 output, data processed by the author 2024

The constant value (α) in the regression equation above is 1,305.012 This value can be interpreted as the base value of the share price if all independent variables (RORA, LDR and CAR) are equal to zero. However, in practice it is unlikely that all these variables are equal to zero. This value provides a reference point to understand how the share price may change depending on other variables.

The Rerturn On Risk Asset (RORA) variable is negative -28.72521, this means that each increase in RORA (Return on Risk Assets) by one unit will cause a decrease in stock price of 28.72521, assuming other variables remain constant. This shows that there is a negative correlation between RORA and stock prices, the higher the RORA, the lower the stock price

The Loan To Deposit Ratio (LDR) variable is 1.511718, this means that each one unit increase in the LDR (Loan to Deposit Ratio) will increase the value of the stock price by 1.511718, assuming other variables remain constant.

The Capital Adequacy Ratio (CAR) variable is worth 18.02678 positive coefficient which means that each increase of one unit of CAR (Capital Adequacy Ratio) causes an increase in stock price of 18.02678, assuming other variables remain constant. This shows that the higher the CAR, the higher the share price.

Hypothesis Test Results

Determination Coefficient Test

Table 5. Determination Coefficient Test Results

Uji Koefisien Determinasi		
R-squared	Adjusted R-squared	Keterangan
0,072565	0,05676	Terdapat Kontribusi (Lemah)

Source: Eviews 13 output, data processed by the author 2024

Based on table , it is known that the Adjusted R Square value is 0.063233, it concludes that the contribution of the influence of the Independent variable on the dependent variable simultaneously is 5.68%. While the remaining 94.32% is influenced by other variables outside this study.

Anova F Test

Table 6. Anova F Test Results

Uji F Anova			
Variabel	F-Statistic	Probability	Keterangan
RORA, LDR, dan CAR	4,590220	0,004039	Signifikan

Source: Eviews 13 output, data processed by the author 2024

Based on the table, it is known that the F Statistic value is 4.59022 with a probability F statistic value of 0.004039 less than the α (0.05) value, it can be concluded that the independent variables Return On Risk Asset, Loan To Deposit Ratio, Capital Adequacy Ratio together have an effect on the Dependent variable (Y) Stock Price.

Statistical t Test

Table 7. Statistical t Test Results

Uji t Parsial			
Variabel	t-Statistic	Probability	Keterangan
C	2,270807	0,0244	
RORA	-0,795129	0,4276	Tidak Signifikan
LDR	0,459236	0,6466	Tidak Signifikan
CAR	3,057957	0,0026	Signifikan

Source: Eviews 13 output, data processed by the author 2024

The Return On Risk Asset (RORA)/X1 variable has a t-Statistic of (-0.795129) with a probability (significance) value of 0.4276 greater than the α (0.05) value, it can be concluded that the RORA (X1) variable has no significant effect on the Share Price (Y) variable. So in this study it can be concluded that the first hypothesis proposed in this study is rejected (H1 is rejected).

The Loan To Deposit Ratio (LDR)/X1 variable has a t-Statistic of 0.459236 with a probability (significance) value of 0.6466 greater than the α (0.05) value, it can be concluded that the LDR variable (X2) has no significant effect on the stock price variable (Y). So in this study it can be concluded that the hypothesis proposed in this study is rejected (H2 rejected).

And the Capital Adequacy Ratio (CAR)/X3 variable has a t-Statistic of 3.057957 with a probability (significance) value of 0.0026, which is smaller than the α (0.05) value, it can be concluded that the CAR (X3) variable has a positive and significant effect on the stock price variable (Y). So in this study it can be concluded that the hypothesis proposed in this study is accepted (H3 accepted).

CONCLUSION

Return On Risk Asset (RORA) has no effect on stock prices in banking companies listed on the Indonesia Stock Exchange (IDX) in 2020-2023; Loan To Deposit ratio (LDR) has no effect on stock prices in banking companies listed on the Indonesia Stock Exchange (IDX) in 2020-2023; Capital Adequacy Ratio (CAR) affects the share price of banking companies listed on the Indonesia Stock Exchange (IDX) in 2020-2023.

For future research it is recommended to include economic condition variables such as recession. In the banking sector, a recession can reduce the ability of customers to pay credit and debt, increase credit risk for banks, and this can result in a decrease in banking stock prices as investors become more skeptical of the business's ability to generate stable profits.

REFERENCE

Agustin, G. T., & Wijaya, T. (2023). Pengaruh CAR, ROA, dan LDR Terhadap Harga Saham Pada Perusahaan Perbankan Yang Terdaftar di Bursa Efek Indonesia Tahun 2017-2022. *Jurnal Pendidikan Dan Konseling*, *5*.

Amalia, D. (2023, November). Memahami Tentang Analisis Laporan Keuangan Bank.

Choiriyah, C., Fatimah, F., Agustina, S., & Ulfa, U. (2021). The Effect Of Return On Assets, Return On Equity, Net Profit Margin, Earning Per Share, And Operating Profit Margin On Stock Prices Of Banking Companies In Indonesia Stock Exchange. *International Journal of Finance Research*, *1*(2), 103–123. https://doi.org/10.47747/ijfr.v1i2.280

Demitria Olla, V., & Mareta, S. (2023). The Influence Of Return On Equity, Debt Equity Ratio, Current Ratio, Firm Size, And Price Earning Ratio On Stock Prices Of Manufacturing Companies In The Cement Sub-Sector Listed On The Indonesia Stock Exchange (Period 2018-2022). *Jurnal Perspektif Manajerial Dan Kewirausahaan (JPMK)*, *4*(1). https://doi.org/10.59832/jpmk.v4i

Fadilla, Z., Ketut Ngurah Ardiawan, M., Eka Sari Karimuddin Abdullah, M., Jannah Ummul Aiman, M., & Hasda, S. (2022). Metodologi Penelitian Kuantitatif. http://penerbitzaini.com

Harianja, H., Halawa, W., Tafonao, S., & Siahaan, D. C. B. (2021). Pengaruh Rasio CAMEL Terhadap Harga Saham Pada Perusahaan Perbankan yang Terdaftar di Bursa Efek Indonesia. *Jurnal Neraca Agung-Prodi Akuntansi FE UDA*, *11*(1), 41–52.

Lule, B., & Tamboto, M. (2015). Analisis Pengaruh Rasio CAMEL Terhadap Harga Saham Perbankan Di Indonesia Tahun 2010-2013. *Journal of Business and Economics*, *14*.

Maliki, F., & Apandi, A. (2022). Analisis Capital Adequacy Ratio (CAR), Return on Risk Assets (RORA) dan Net Profit Margin (NPM) terhadap Nilai Perusahaan (Studi pada

Sektor Perbankan yang Terdaftar di BEI 2015-2019). *BPJP) Sekolah Tinggi Ilmu Ekonomi Indonesia Jakarta*, *05*(01). www.sahamok.com

Mareta, S. (2015). Analisis Faktor-Faktor Yang Mempengaruhi Timrliness Publikasi Laporan Keuangan Periode 2009-2010 (Studi Empiris Pada Bursa Efek Indonesia). In *Jurnal Akuntansi: Vol. XIX* (Issue 01).

Nabilah, M. (2023). Indeks Harga Saham Gabungan (IHSG) 8 Agustus-8 September 2023.

Novita, L. (2022). Pengaruh Kinerja Keuangan Terhadap Harga Saham. 3, 41–58.

Peraturan Bank Indonesia Nomor 15/7/PBI/2013 Tentang Perubahan Kedua Atas Peraturan Bank Indonesia Nomor 12/19/PBI/2010 Tentang Giro Wajib Minimum Bank Umum Pada Bank Indonesia Dalam Rupiah Dan Valuta Asing. (2013).

Peraturan OJK Nomor 48 Tahun 2020. (2020). Peraturan OJK Nomor 48 Tahun 2020.

Riyadi, S., & Setyawan, A. F. (2018). Analisis Pengaruh Kinerja Keuangan Dan EPS Terhadap Harga Saham Bank Kategori Buku 4 (Periode 2013-2017). In *PERBANAS REVIEW* (Vol. 3).

Rizky Kusuma Kumaidi, & Nadia Asandimitra. (2017). Pengaruh ROA, ROE, DER, DPR, Dan LDR Terhadap Harga Saham Sektor Perbankan Bei Periode 2011 – 2016 (Dengan Penggolongan Kapitalisasi Kecil dan Kapitalisasi Besar). *Jurnal Ilmu Manajemen*.

Saraswati, Jodhi Satyagraha Boediono, Rani Wijayant, Faizal Rahman, & dan lainnya. (2020). *Kajian Stabilitas Keuangan No.35, September 2020*.

Sari, L., Esparesya, W., & Septiano, R. (2022). *Pengaruh Earning Per Share, Debt To Equity Ratio Dan Return On Equity Terhadap Harga Saham Pada Perusahaan LQ45 yang Terdaftar di Bursa Efek Indonesia Tahun 2016-2020*. *3*(5). https://doi.org/10.31933/jimt.v3i5

Tenika, E., & Muchtar, S. (2024). Pengaruh Variabel Keuangan dan Regulasi terhadap Harga Saham Perbankan di Indonesia: Studi Kasus pada Perbankan Indonesia. *Reslaj: Religion Education Social Laa Roiba Journal*, *6*, 2081. https://doi.org/10.47476/reslaj.v6i4.1207