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# DETERMINANTS OF STOCK PRICE BEHAVIOR IN THE BANKING SECTOR FOR THE PERIOD 2016 – 2020

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# Abstract

The purpose of this study is to determine the effect of Variable Capital Adequacy Ratio (CAR), Loan To Deposit Ratio (LDR), Non Performing Loan (NPL), Return On Assets (ROA) both partially and jointly on the price of banking stocks that have the largest assets on the Stock Exchange Indonesia (IDX). The samples used in this study were as many as 10 banks taken from the Purposive Sampling Method. The analysis method used in this study is Panel Data Regression Analysis using statistical analysis tools in the form of Eviews. Results of this Study shows that the Partial Capital Adequacy Ratio (CAR), Loan To Deposit Ratio (LDR) and Return On Assets (ROA) have an influence on the Share Price of banks. Meanwhile, the Non Performing Loan (NPL) variable has no influence on the Stock Price. Simultaneously showing. The variables of Capital Adequacy Ratio (CAR), Loan To Deposit Ratio (LDR), Non Performing Loan (NPL), Return On Assets (ROA) have proven to have an influence on the Share Prices of the 10 banks with the largest assets listed on the Indonesia Stock Exchange (IDX) in 2016-2020.

Keywords: CAR, LDR, NPL, ROA, Share Price



# INTRODUCTION

In early 2020, the spread of COVID-19 expanded rapidly to many countries. This condition is not only a health phenomenon. The widespread pandemic has had a significant impact on the economy, not only on declining economic demand, but also limited supply caused by restrictions on people's mobility. The weakening of business and household activity has subsequently put pressure on the financial sector. Amidst the enormous challenges, fiscal policy measures, monetary and macroprudential policies, as well as policies in the financial sector adopted by the government and authorities in order to save the national economy were able to mitigate the impact of the COVID-19 pandemic, so that the recovery process gradually showed improvement and financial system stability was maintained, thus providing sufficient room for the banking industry to increase intermediation activities.

The banking sector is an institution that plays an important role in people's lives. This is because banks play a role in economic development by prioritizing the business world. In addition, banks also contribute to activities in the capital market. Banking is the industry that occupies the most category of ten issuers with the largest market capitalization. The large market capitalization value can also cause the size of the stock price. The larger the nominal share price, it proves that many investors are interested in investing.



Figure 1 Development of Third Party Funds of Commercial Banks

From the chart image above, it can be seen that the increase and decrease in Third Party Funds in Commercial Banks. The growth of third-party funds is one of the internal factors that can influence the increase in profitability (Dendawijaya, 2009). This is because third-party funds are a component of liquid assets, whose funds can be quickly turned back so as to



increase profitability. The growth of third-party funds reflects how much change the funds raised by the bank have managed to raise from the public in the form of current accounts, savings and time deposits. The increase in third-party funds as the main source of funds for banks is an opportunity where banks can place these funds into productive assets, namely credit.



Figure 2. Development of Commercial Bank Loans and NPLs

Credit growth describes the level of development in the volume of credit disbursed to third parties in a certain period (Saputra, 2014). When customer demand for credit grows with a record of no bad loans, the profit that will be obtained by the bank will also grow because it gets interest on loans from loans. The higher the credit growth, the better the quality and quantity of credit, the higher the bank's opportunity to re-channel the funds to the public or debtors, so that the opportunity to obtain profits is greater (Prawira, 2014).

The development of third-party funds and interest rates may affect credit growth. With the increasing growth of third-party funds and the low interest rate on loans, many customers will use bank services. More people will be helped, and the hope is that the community can be more prosperous because of the availability of business capital that is easy to get from the bank, and for the bank itself, the bank can get a high profit or profit. With the high profit obtained by banks, there will also be a lot of demand for the bank's shares so that it can also increase the increase in stock prices.

The value of the company is reflected in the price of the shares themselves. The high stock price indicates that the company has a good value, and vice versa, a low stock price indicates that the company has a low value. A stock price index describes stock price fluctuations.



Good financial performance is one of the indicators of public trust in the bank concerned. There is one case related to financial performance, namely regarding the case experienced by Bank Mutiara. Reported by Tempo (2014), "At the end of 2013 the percentage of CAR, Bank Mutiara plummeted to below 5%. This is due to the Antaboga case experienced by Bank Mutiara, causing losses to customers". The existence of this case gives an idea that the importance of the financial performance of the bank. In general, investors are required to be more careful and selective in choosing banking targets as a place to invest in order to be able to maximize the profits obtained. To measure the financial performance of banks, a financial ratio analysis is carried out. The financial ratios used are Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), Non Performing Loan (NPL), and Return On Assets (ROA).

Nurfauziah (2019) showed that CAR has a partial influence on Stock Price, but another different conclusion is the research conducted by Salsabilla (2020) which shows that CAR partially has no effect on Stock Price.

Idawati (2018) showed that LDR has a partial influence on Stock Price, but another different conclusion is the research conducted by Masril (2018) which shows that LDR partially has no effect on Stock Price.

Hartanto (2018) showed that NPLs have a partial influence on Stock Prices, but another different conclusion is the research conducted by Husna (2016) which shows that NPLs partially have no effect on Stock Prices.

Rusdivanto (2018) showed that ROA has a partial influence on Stock Price, but another different conclusion is a study conducted by Wibisono (2015) which shows that ROA partially has no effect on Stock Price.

Several studies on the effect of financial performance on stock prices have been conducted, but the results are mixed and generally inconsistent. The absence of consistency from some of the results of the research that has been carried out, attracted the attention of the author to review research related to the determination of banking stock behavior, especially regarding the existence of factors (variables) that determine fluctuations (volatility) in banking stock prices.

In the explanation above, the banking sector is indeed a strategic sector in the world of trade and development in Indonesia. The Bank can be a bridge in supporting Indonesia's economic growth through real sector financing. National banking can be a driver in the national economy by creating jobs in collecting or mobilizing funds from the public and companies, which is then carried out by distributing funds into productive businesses in various sectors.

Looking at the phenomenon that has been expressed above, the author feels interested in conducting research regarding factors that affect stock prices.



# LITERATURE REVIEW

## **Share Price**

According to Fahmi (2012), it is stated that there are several factors that influence the rise and fall of stock prices, namely as follows:

- 1. Micro and macroeconomic conditions.
- 2. Sudden change of directors.
- 3. The company's performance continues to decline every time.
- 4. The company's decision to expand its business such as opening branch offices, subbranch offices both opened domestically and abroad.
- 5. Systematic risk, which is a risk that occurs thoroughly and has contributed to the company being involved.
- 6. The effect of market psychology that turns out to be able to suppress the technical condition of selling stocks.
- There is a commissioner or board of directors involved in a criminal act and the case has gone to court.

# **Factors Affecting The Price**

In daily stock transaction activities, the stock price will always experience fluctuations, both positive in the form of increases and negative ones in the form of a decrease in stock prices in every operating hour of the stock exchange. There are many factors that can influence the formation of a price on a stock. These factors can be such as economic, political, security conditions between countries or the state of the company itself. According to Darmawi (2011) there are several main factors that affect stock prices, namely:

## Internal Factors

- 1) Announcements about marketing, production, sales such as advertising, contract details, price changes, new product recalls, production reports, product safety reports, and sales reports.
- Financing announcements, such as announcements related to equity and debt.
- Announcements of management boards of directors such as changes and changes in directors, management, and organizational structures.
- 4) Announcement of diversification takeovers, such as merger reports, equity investments, take over reports by acquirers and acquisitions.
- 5) Investment announcements, such as making factory expansion, research development and other business closures.



- 6) Labor announcements, such as new negotiations, new contracts, strikes and others.
- 7) Announcement of the company's financial statements, such as profit forecasting before the end of the fiscal year and after the end of the fiscal year, Earnings per Share (EPS), Dividends Per Share (DPS), Price Earning Ratio (PER) and others.

# External Factors

- 1) Announcements from the government such as changes in savings and deposit rates, foreign exchange rates, inflation, as well as various regulations and economic deregulations issued by the government.
- 2) Legal announcements, such as employee claims against the company or against its managers and company claims against its managers.
- 3) Securities industry announcements, such as annual meeting reports, insider trading, volume or price of stock trading, trading restrictions/delays.
- 4) Domestic political turmoil and exchange rate fluctuations are also factors that have a significant effect on the occurrence of stock price movements on a country's stock exchange.

Some of the ratios described below are guidelines for calculating financial ratios established by Bank Indonesia through Bank Indonesia Regulation No. 30 of 2008.

# 1. Capital Adequacy Ratio (CAR)

Based on Bank Indonesia regulations, banks are required to fulfill the minimum capital participation obligation, or known as CAR (Capital Adequacy Ratio), which is derived from the ratio between own capital to risk-weighted assets (ATMR). In line with the standards set by the Bank of International Settlements (BIS), all banks in Indonesia are required to provide a minimum capital of 8% (Darmawi, 2011). The formula for calculating this ratio is as follows (Hasibuan, 2017):

 $CAR = \frac{OWN CAPITAL}{ATMR} X 100\%$ 

# 2. Loan to Deposit Ratio (LDR)

According to Riyadi (2015), the Loan to Deposit Ratio is a comparison of total loans to Third Party Funds (DPK) collected by the Bank. According to Bank Indonesia Regulation (PBI)



Number 15/7/PBI/2013, the lower limit of the LDR target is 78%, while the upper limit of the target LDR is 92%. The formula for calculating this ratio is as follows (Sudirman, 2013):

 $LDR = \frac{TOTAL CREDITS}{TOTAL THIRD PARTY FUNDS} X 100\%$ 

# 3. Non Performing Loan (NPL)

According to Darmawi (2011), Non Performing Loan is one of the measurements of the bank's business risk ratio which shows the amount of non-performing credit risk that exists in a bank. According to Bank Indonesia Regulation (PBI) Number 20/8/PBI/2018, the amount of NPL allowed by Bank Indonesia is currently a maximum of 5%. The formula for calculating this ratio is as follows (Mahmoedin, 2010):

 $NPL = \frac{TOTAL BAD LOANS}{TOTAL CREDIT PROVIDED} X 100\%$ 

# 4. Return On Asset (ROA)

According to Tandelilin (2014), ROA is a ratio that describes the extent to which the ability of assets owned by a company can generate profits. According to Bank Indonesia Regulation (PBI) Number 6/9/PBI/2004 the best standard roa is 1.5%. The formula for calculating this ratio is as follows (Fahmi, 2015):

 $ROA = \frac{EARNINGS AFTER TAX (EAT)}{TOTAL ASSETS} X 100\%$ 

## Hypotheses and Research Models

A hypothesis is a temporary answer to the formulation of a research problem, the truth of which must be proven through collected data (Sugiyono, 2006). Based on the background of the problem, problem formulation, research objectives and literature review as described above, the hypotheses that will be tested through this study are as follows:

- **Hypothesis** 1:  $H_1$  = Ratio of CAR affects Stock Price.
- Hypothesis  $H_2$  = Ratio of LDR affects share Price. 2:
- Hypothesis 3:  $H_3$  = Ratio of NPL affects share Price
- 4:  $H_4$  = Roa ratio affects share price Hypothesis
- H<sub>5</sub> = CAR, LDR, NPL, and ROA, either individually or together Hypothesis 5: (simultaneously) affect the stock price.





Figure 3 Research Model

# **RESEARCH METHODS**

The population in this study is all secondary data from 10 banking companies listed on the Indonesia Stock Exchange (IDX) for the research period 2016 – 2020. The ten companies are BCA, BRI, Mandiri, BNI, Danamon, BTN, BTPN, CIMB, OCBC, PANIN as the object of research.

The sample of this study was selected by the purposive sampling method, which is a sample selection technique based on the specified criteria. The sample is selected with the following criteria:

- 1) Banking Companies that are listed on the Indonesia Stock Exchange and have fairly complete data.
- 2) Banking Companies have the largest number of assets in the period 2016 2020.
- 3) Banking Companies that issue financial statements that close prices on December 31, 2016, 2017, 2018, 2019, and 2020.

The data analysis methods used are panel data regression analysis, hypothesis testing (T test and F test) and coefficient of determination ( $R^2$ ). In conducting multiple regression analysis, several hypotheses that need to be met are classical assumption tests which include normality tests, multicholinearity tests, heteroskedasticity tests and autocorrelation tests.



NO	RESEARCH	DESCRIPTION	SCALE
	VARIABLE	According to Hadi (2013: 170) defining stock	
		price is the value of shares in runiah formed	
		due to the act of buying and offering shares	
1	Stock Price	on the stock exchange by fellow members of	Nominal
	(Y)	the stock exchange. The Banking Share Price	
		in question is the shares of the 10 largest	
		banks in Indonesia, namely; BCA, BRI,	
		Mandiri, BNI, Danamon, BTN,	
		BTPN, CIMB, OCBC, PANIN.	
	Capital Adequacy	CAR (Capital Adequacy Ratio) is derived from	Ratio
2	Ratio	the ratio between own capital to assets	
	(X <sub>1</sub> )	risk-weighted (ATMR).	
	Loan To Deposit	Loan To Deposit Ratio is a comparison of total	Ratio
3	Ratio (X <sub>2</sub> )	loans to Third Party Funds (DPK) collected by	
		Bank	
	Non Performing	Non Performing Loan is one of the	Ratio
4	Loan (X <sub>3</sub> )	measurements of the bank's business risk	
		ratio which shows the magnitude of credit risk	
		problems that exist in a bank.	
	Return On	ROA is a ratio that describes the extent to	Ratio
5	Assets (X <sub>4</sub> )	which the ability of the assets owned by a	
		company can generate a profit.	

Table 1 Variable Operations

# **RESULTS AND DISCUSSION**

# **Descriptive Statistical Analysis**

Ta	able 2	2 Desci	riptive	Statistics	

	HS	CAR	LDR	NPL	ROA
Mean	5784.720	21.42680	93.43640	2.529800	2.329400
Median	3345.000	21.43000	93.24500	2.745000	2.130000
Maximum	33850.00	29.58000	163.0000	4.780000	4.000000
Minimum	750.0000	16.80000	65.80000	0.790000	0.130000
Std. Dev.	7622.024	2.659765	14.68665	0.948779	0.967913
Skewness	2.543244	0.446506	2.402693	0.134091	-0.000863
Kurtosis	8.991620	3.188080	12.29567	2.584170	2.371002
Jarque-Bera	128.6914	1.735093	228.1277	0.510076	0.824253
Probability	0.000000	0.419981	0.000000	0.774887	0.662241
Sum	289236.0	1071.340	4671.820	126.4900	116.4700
Sum Sq. Dev.	2.85E+09	346.6431	10569.19	44.10890	45.90588
Observations	50	50	50	50	50



This study explains the impact of Capital Adequacy Ratio (CAR), Loan To Deposit Ratio (LDR), Non Performing Loan (NPL) and Return On Assets (ROA) to the stock price.

Based on table 2, it is known that the number of studies (observations) in the study was 50 samples taken from 10 banking companies, namely BCA, BRI, Mandiri, BNI, Danamon, BTN, BTPN, CIMB, OCBC, PANIN and each company was taken for 5 years, namely as of December 2016-2020. The results of the descriptive statistical analysis are as follows:

The Variable Share Price (Y) has a minimum value of 750 rupiah, namely the share price of Panin Bank in December 2016, while the maximum value of 33850 rupiah is the value of Bank BCA's share price in 2020. The average value (mean) of the stock price is 5785 rupiah while the standard deviation value is 7622.024.

The Capital Adequacy Ratio (CAR) or X<sub>1</sub> variable has a minimum value of 16.8 percent, namely the CAR from BNI in December 2020, while the maximum value of 29.58 percent is the PANIN Bank CAR value in 2020. The mean value of the CAR value is 21.42680 or rounded up by 21.43 percent while the standard deviation value is 2.659765.

The variable Loan To Deposit Ratio (LDR) or X<sub>2</sub> has a minimum value of 65.80 percent, namely the LDR from BANK BCA in December 2020, while the maximum value of 163 percent is the LDR value of Bank BTPN in 2020. The mean value of the LDR value was 93.43640 or rounded up by 93.44 percent while the standard deviation value was 14.68665.

The Non Performing Loan (NPL) or  $X_3$  variable has a minimum value of 0.79 percent, namely the NPL from Bank BPTN december 2016, while the maximum value of 4.78 percent is the NPL value of Bank BTN in 2020. The mean value of the NPL value is 2.529800 or rounded by 2.5 percent while the standard deviation value is 0.948779.

Variable Return On Assets (ROA) or X4 has a minimum value of 0.13 percent, namely roa from Bank BTN december 2019, while the maximum value of 4 percent is the ROA value of Bank BCA in 2018. The mean value of the ROA value is 2.329400 or rounded by 2.33 percent while the standard deviation value is 0.967913.

# Model Conformity Test

Before estimating with panel data, it is necessary to choose from the three models, namely: Common Effect Model, Fixed Effect Model, and Random Effect Model. There are several tests that can be done to choose the best model to estimate the panel data, which are as follows:

# 1. Chow Test

The Chow test is a test performed to select a Common Effect Model or a Fixed Effect Model. The results of the Chow Test can be seen in the following table:



	-					
Redundant Fixed Effects Tests						
Equation: Untitled						
Test cross-section fixed effects						
Effects Test	Statistic	d.f.	Prob.			
Effects Test Cross-section F	Statistic 21.081796	d.f. (9,36)	Prob. 0.0000			

#### Table 3 Chow Test Output

Hypothesis:

H<sub>o</sub> = Common Effect Model

H<sub>a</sub> = Fixed Effect Model

From the results of the Chow Test, it shows that the probability value for the chi square cross section is 0.0000. When compared with the value of  $\alpha$  (0.05) then 0.0000 < 0.05. Meaning that Ho is rejected and Ha is accepted. So it can be concluded that the Fixed Effect Model is more appropriate for this study than the Common Effect Model. However, if the probability value > 0.05, it means that a good Common Effect Model is used to estimate the research model.

## 2. Hausman Test

The Hausman test is a test performed to choose whether to use a Fixed Effect Model or a Random Effect Model. The results of the Hausman Test can be seen in the table as follows:

Correlated Random Effects -	Hausman Test					
Equation: Untitled	Equation: Untitled					
Test cross-section random ef	fects					
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.			
Cross-section random	6.657102	4	0.1552			

Table 4 Hausman Test Output

Hypothesis:

H<sub>o</sub> = Random Effect Model

H<sub>a</sub> = Fixed Effect Model

Based on the Hausman Test, a probability value of 0.1552 was obtained. When compared with the  $\alpha$  value (0.05) then Ho is accepted because the probability value >  $\alpha$  means that the Random Effect Model was selected. Because the Chow Test results state that the Fixed Effect Model is more precise, while the Hausman Test results say the Random Effect Model is more precise, the Lagrange Multiplier test must be carried out.



# 3. Lagrange Multiplier Test

According to (Kosmaryati et al., 2019), the Lagrange multiplier (LM) is used to test whether the Random Effect Model is better than the Common Effect Model.

Lagrange Multiplier Tests for Random Effects Null hypotheses: No effects Alternative hypotheses: Two-sided (Breusch-Pagan) and one -sided (all others) alternatives

	Test Hypothe	sis	
	Cross-section	Time	Both
Breusch-Pagan	33.68195	0.084259	33.76621
	(0.0000)	(0.7716)	(0.0000)
Honda	5.803615	-0.290275	3.898520
	(0.0000)		(0.0000)
King-Wu	5.803615	-0.290275	2.977743
	(0.0000)		(0.0015)
Standardized Honda	7.471955	0.179117	2.102980
	(0.0000)	(0.4289)	(0.0177)
Standardized King-Wu	7.471955	0.179117	1.134306
	(0.0000)	(0.4289)	(0.1283)
Gourierioux, et al.*			33.68195
			(< 0.01)

Hypothesis:

H<sub>0</sub>: Common Effect Model

H<sub>1</sub>: Random Effect Model

From the results of the above output, it can be seen that the Breusch- Pagan Probability (BP) value is 0.0000. As per the hypothesis, if probability BP (0.0000) < 0.05 then H1 is accepted, then the matching model is a Random EffectModel.

# **Test of Classical Assumptions**

Based on the results of the normality test, it is known that the Probability value of the Jarque-fallow is 0.291305, therefore the probability value > 0.05, the Normality Assumption Test has been met. For the results of the Multicholinearity Test, it can be seen that all variables are free from multicholinearity problems because they show their correlation values below 0.8 so that in this study the regression model did not occur multicholinearity problems. The heteroskedasticity test is based on the results of the White Test, it shows the p-value indicated



by the Prob value. chi square(2) in Obs\*R-Squared is 0.3721 or greater than  $\alpha$  (0.05), because the p value is 0.3721 > 0.05 then accept H0 or which means the regression model is Homoskedasticity or in other words there is no problem assuming non Heteroskedasticity. Furthermore, the results of the Autocorrelation Test with the Breusch-Godfrey model that the Chi Square Probability value (2) is greater than 0.05 (0.2185 > 0.05) so that H0 is rejected which means there is no Autocorrelation problem. From the test results of the classical assumptions that have been explained that the processed data have been qualified to use multiple linear regression.

## Multiple Linear Regression Analysis

Panel regression analysis is a modeling approach that incorporates time and crossindividual influences into its regression model. In addition, in general, panel data modeling will show values that are informative compared to other modeling such as cross-section or time series data (Kosmaryati et al., 2019). Here are the results of the Panel Data **Regression Test:** 

Table 6	Data	Regression	Panel
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Dependent Variable: Y_HS						
Method: Panel Lea	ast Squares					
Date: 01/14/22 Tin	ne: 17:04					
Sample: 2016 202	0					
Periods included:	5					
Cross-sections inc	luded: 10					
Total panel (balan	ced) observations:	50				
White cross-sectio	n standard errors	& covariance (no	o d.f.			
correction)						
Variable	Coefficient	Std. Error	t-Statistic	Prob.		
С	9494.762	3312.916	2.865984	0.0063		
CAR 194.1862 39.94830 4.860937 0.0000						
LDR	-152.1592	41.85986	-3.634968	0.0007		
NPL	-559.9744	432.7027	-1.294132	0.2022		
ROA	3332.620	269.8058	12.35192	0.0000		

Based on the regression calculation shown in figure 7, the regression equation is as follows:

Y = 9494.76 + 194.18CAR - 152.15LDR - 559.97NPL + 3332.62ROA + e



# Partial Test (T Test)

Dependent Variable:	Y_HS			
Method: Panel Least	Squares			
Date: 01/14/22 Time:	17:04			
Sample: 2016 2020				
Periods included: 5				
Cross-sections includ	led: 10			
Total panel (balanced	d) observations: 50			
White cross-section s correction)	standard errors & cova	riance (no d.f.		
Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	9494.762	3312.916	2.865984	0.0063
CAR	194.1862	39.94830	4.860937	0.0000
LDR	-152.1592	41.85986	-3.634968	0.0007
NPL	-559.9744	432.7027	-1.294132	0.2022
ROA	3332.620	269.8058	12.35192	0.0000

Table 7 Partial test result (t-test)

Based on the results of the T test, the CAR, LDR and ROA variables affect the stock price because the value prob is below 0.05 while the NPL variable does not affect the stock price because the prob value is above 0.05, which is 0.2022.

# **Test Together (Test F)**

Table 8 F Test Outp	ut
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R-squared	0.904382	Mean dependent var	5784.720
Adjusted R-squared	0.869853	S.D. dependent var	7622.024
S.E. of regression	2749.713	Sum squared resid	2.72E+08
F-statistic	26.19211	Durbin-Watson stat	0.793273
Prob(F-statistic)	0.000000		

Based on the results of simultaneous regression analysis, it can be seen that the value of P-value = 0.000 <  $\alpha$ (0.05) which gives the decision to reject H0. This means that there is a joint influence between the variables of Capital Adequacy Ratio (CAR), Loan To Deposit Ratio (LDR), Non Performing Loan (NPL) and Return On Assets (ROA) on The Share Price.

# **Coefficient of Determination (R2)**

From table 8, it can be seen that the  $R^2$  value between the capital adequacy ratio (CAR), Loan To Deposit Ratio (LDR), Non Performing Loan (NPL) and Return On Assets (ROA)



variables of 0.904382 is rounded to 90%. This means that the percentage of Capital Adequacy Ratio (CAR), Loan To Deposit Ratio (LDR), Non Performing Loan (NPL) and Return On Assets (ROA) is 90%. This shows a high value and there is a strong positive relationship between the Capital Adequacy Ratio (CAR), Loan To Deposit Ratio (LDR), Non Performing Loan (NPL) and Return On Assets (ROA) with the Share Price. The remaining 10% is explained by other variables outside the model that were not researched in this study.

In addition, there is an R<sup>2</sup> (adj) value of 0.869853 rounded to 87% meaning that the variables of Capital Adequacy Ratio (CAR), Loan To Deposit Ratio (LDR), Non Performing Loan (NPL) and Return On Assets (ROA) can explain the effect of the Stock Price of the remaining 13% explained by other variables outside the model that were not studied in this study.

#### DISCUSSION

## Effect of Capital Adequacy Ratio (CAR) on Stock Price

The results of the first Hypothesis  $(H_1)$  test stated that the Capital Adequacy Ratio (CAR) variable has a positive and significant influence on the Share Price of banks.

Capital Adequacy Ratio (CAR) or capital adequacy ratio in banking is a very important ratio in a company including in banking. It is generally known that with sufficient capital, a company including banks will be able to finance a lot of its service products, besides a large CAR or in other words a large capital, then low-risk assets. Companies that have a high CAR, in general, the risk in investing is low. This will encourage investmentists to flock to buy shares, and according to the law of demand and supply, these conditions will increase the stock price.

This is in line with research by Nurfauziah (2019), Haryetti (2012) the higher the CAR, the higher the share price, because a bank that has a high CAR means that the bank has sufficient capital to carry out its business activities and is also sufficient to bear the risk if the bank is liquidated.

In contrast to the research conducted by Kusumawardhani (2021) Masril (2018), Wulandari, (2015), Sumantri (2020) and several others in previous research which has also resulted in proof from his research that CAR does not have a partial influence on stock prices.

In this study, the capital adequacy ratio (CAR) was not able to predict and even boost price changes (Y) because with a large capital ratio, investors are still hesitant to buy shares when they do not see any other variables.



# Effect of Loan to Deposit Ratio (LDR) on Stock Price

The results of the second Hypothesis Test  $(H_2)$  state that the Loan To Deposit Ratio (LDR) variable has an influence, but the effect is negative (or not unidirectional) on the Stock Price, so that if the LDR value increases, the value of the stock price is expected to decrease.

Loan To Deposit Ratio (LDR) is the ratio between the entire amount of credit given by the bank with the funds received by the bank (Dendawijaya, 2005:116), the higher the LDR ratio, the share price will fall, and vice versa if the LDR decreases, the share price will increase.

In accordance with Bank Indonesia's provisions that the LDR of banking companies cannot be more than 110%, so if there are banks that have a high LDR, that the bank has a high risk as well. Because with the high LDR, there is a gap between the amount of credit and the number of deposits which has an impact on increasing low liquidity of banks that affects the level of investor confidence. In other words, this ratio has a direct effect on the stock price even if it is not unidirectional or negative.

The results of this study are in line with the research of Satria (2016), Sambul (2016) and others who consider that the increase in LDR will affect stock prices even though the effect is not unidirectional. In contrast to the research conducted by Medyawicesar (2018), Kusumawardhani (2021) Masril (2018), and many others in previous studies stated that the LDR variable had no influence and was not significant on the Share Price.

This is because investors do not focus their attention on the level of the LDR ratio even though it is classified as a safe limit, because the acquisition of most of the profits from the amount of credit given by the bank cannot be said to be completely safe because the possibility of the risk of bad debts that affects the fulfillment of the bank's liquidity level can still occur, this is the reason why investors do not pay attention to the LDR ratio in investing, such a reason that the LDR does not have a significant influence on changes in stock prices.

# Effect of Non Performing Loan (NPL) on Stock Price

The results of the third Hypothesis Test ( $H_3$ ) stated incorrectly that the Non Performing Loan (NPL) variable had a positive influence or in other words proved to have no influence and was also insignificant on the Stock Price.

Non Performing Loan (NPL) is a ratio that shows the bank's ability to manage nonperforming loans disbursed by banks. The higher this ratio, the more likely a bank is to have problems.

The high number of non-performing loans in a bank may result in a fall in the share price, although of course it is not a direct influence, meaning that investors do not immediately see this ratio when they want ownership of shares of a bank, therefore investors can buy shares of a



bank whose NPL value is high or low, they do not look at this ratio but at the way banks cope with their non-performing loans only, and then the bank acquires a club (ROA).

For example, the quality of bank assets in Indonesia has improved significantly, as reflected by lower NPL levels of 2.6% (gross) and 1.5% (net) as of December 31, 2018 compared to 2.8% (gross) and 1.7% (net) last year. In other words, the value of NPLs must be negative or declining in order for the bank's assets to increase.

The results of this study are in line with research conducted by Yuliyanti (2017) Tarigan (2018) & Putra (2021) which states that the Non Performing Loan (NPL) variable has no influence and is not significant on stock prices, this is because the large level of bank risk makes investors hesitate to buy the bank's shares, so that at least investor interest makes the stock price decrease.

In contrast to sari's research (2018), Hartanto (2018), Kusumawardhani (2021), which states that the Non Performing Loan (NPL) variable has a positive and significant effect on stock prices. In addition, this study shows that the stock market has a reaction to company rentability information as measured through Non Performing Loans (NPL).

#### Effect of Return On Assets (ROA) on Stock Price

The results of the fourth hypothesis test  $(H_4)$  stated that it was proven truethat the Variable Return On Assets (ROA) had a positive and significant influence on the stock price. Return On Assets (ROA) describes a company's ability to make a profit from every one rupiah of assets used. In addition, Return On Assets (ROA) also provides a good measure of the company's profitability.

In this study, the value of Return On Assets (ROA) is able to predict changes in stock prices (Y), because the higher the Return On Assets (ROA) shows the company's ability to manage company assets so that it has an impact on income and vice versa if the Return On Assets (ROA) decreases, it will have a bad impact on companies including the banking sector, thus indirectly affecting the company's stock price.

The results of this study are in line with research conducted by Hartanto (2018), Kusumawardhani (2021), Medyawicesar (2018) which states that variables in the form of Return On Assets (ROA) have a positive and significant influence on Stock Prices. In addition, this study shows that the stock market has a reaction to company rentability information as measured through Return On Assets (ROA). Companies that show the ability to measure the effectiveness of performance in obtaining profits by utilizing the assets owned, or the greater the Return On Assets (ROA) the better the company's position, so that it will provide guarantees to



investors to invest, therefore the interest in buying shares tends to increase and this of course encourages an increase in the stock price.

In contrast to the research conducted by Tarigan (2018) & Putra (2021) states that the Return On Assets (ROA) variable has a negative and insignificant influence on stock prices. This is because the profits generated by shareholders do not benefit shareholders. So that the level of investor confidence in the company decreases which has an impact on the decline in stock prices.

# Effect of Capital Adequacy Ratio (CAR), Loan To Deposit Ratio (LDR), Non Performing Loan (NPL), Return On Assets (ROA) on Stock Price

Meanwhile, the test results of the 5th Hypothesis (H5) proved to be true that the Variable Capital Adequacy Ratio (CAR), Loan To Deposit Ratio (LDR), Non Performing Loan (NPL), Return On Assets (ROA) together have a positive and significant influence on the Stock Price. This is because the four variables are closely related. This close relationship occurs because it theoretically shows that all its variables are interrelated.

Researchers have not found a similar study before, which examined simultaneously the four variables above as independent variables. Nonetheless, the proof of the simultaneous influence of the four variables CAR, LDR, NPL and ROA is due to banking health problems determined by these variables. A healthy bank is not only sufficient to have a strong capital (CAR), but must also have a balance between the amount of credit and funds received (LDR), must also have expertise in managing its bad debts (NPLs) and thus the bank can increase its profit (ROA), if the four variables are good then the interest rather than investors to buy money will be very high, and the next is that the stock price will continue to rise, as in this study how BCA banks that always continue to rise in their share prices, as well as state-owned banks such as BRI, Mandiri and others that tend to have stable stock prices, this is also inseparable from the improvement of the four variables CAR, LDR, NPL and ROA simultaneously.

## **CONCLUSIONS AND SUGGESTIONS**

The conclusions in this study are:

- 1. Capital Adequacy Ratio partially has an influence on the Share Price.
- 2. Loan To Deposit ratio partially has an influence on the Stock Price.
- 3. Non Performing Loans partially have no effect on stock prices.
- 4. Return On Assets partially has an effect on the Share Price.



5. Capital Adequacy Ratio (CAR), Loan To Deposit Ratio (LDR), Non Performing Loan (NPL) and Return On Assets (ROA) simultaneously or jointly have a positive and significant influence on the Share Price.

Suggestions that can be given are:

- 1. For potential investors who want to invest in banking companies, you should be able to be even more selective in choosing a company that will be used as a place to invest. In addition, it is also expected to pay attention to the company's prospects by identifying the ratio of CAR, LDR, NPL and ROA as a reference for analysis of its share price. Banks are expected to have a high CAR ratio, low LDR ratio, low NPL ratio and high ROA ratio, with these factors, the share price of a bank can rise. This can increase the confidence of potential investors to invest their capital.
- 2. For other researchers who use similar topics, it is advisable to conduct further research by adding other independent variables that have an impact on stock prices, conducting long-term data processing, and expanding the object of study.

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