

ANALYSIS OF FACTORS AFFECTING BANKING LIQUIDITY AND PROFITABILITY: CASE STUDY OF STATE-OWNED BANKS LISTED ON THE INDONESIA STOCK EXCHANGE PERIOD 2017 – 2019

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DOI: <https://doi.org/10.37178/ca-c.23.1.348>

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Abstract

Introduction: This study analyze the factors affecting banking liquidity and profitability of state-owned banks listed on the Indonesia Stock Exchange Period 2017-2019

Objective of the paper : This study was conducted to determine and test the effect of the variable Return on Asset (ROA), Current Ratio, and Stock Price on

Liquidity and Profitability at state-owned commercial banks listed on IDX for the 2017-2019 period.

Method: This study uses secondary data using quantitative methods. There are 4 banks that are researched for 3 years on an annual basis from 2017 to 2019. The analysis used is multiple linear regression analysis. The data were processed using the Eviews 9 application by setting a significance level of 0.05 for testing the hypothesis.

Findings : This study finds that both Return On Assets (ROA) and Current Ratio (CR) have a significant effect on the stock prices.

Conclusion : It shows that the Return On Assets (ROA) has a positive and significant effect on stock prices. On the other hand, Current Ratio (CR) has a negative and significant effect on stock prices.

Keywords: Current Ratio (CR), Return on Asset (ROA), Stock Price, Liquidity, Profitability

INTRODUCTION

Bank is a service company that offers financial services to the public. Law Number 7 of 1998 on banking stated, a bank is a business body that accumulates public funds in the form of savings and allocates it to the public in the form of credit or other forms to enhance the living standards of people[1].

In addition to saving in the bank, we can also become part of the bank by buying shares sold by the bank itself. The Indonesia Stock Exchange or IDX can be one of our references to find information regarding the movement of stocks that we want[2, 3].

Shares are securities that show evidence of individual and institutional ownership in a company. The company always tries to maximize the value of its shares in order that investors are intrigued to invest their capital in the company. One of these share values can be measured based on the price of the share [4].

The stock price is the price that is established on the exchange, the impact of supply and demand determines the stock price. The more people who want to buy shares, the price tends to move up and vice versa. The more people who sell their shares, the stock price will move down [5, 6].

Investors see the stock price of the company they are going to buy as an initial consideration in investing. The reason is because investors want to get a profit for their investment. Company's performance determined the price of stock. Financial statements will show the performance of companies that have gone public. Earnings information usually gets great attention for users of financial statements, especially investors [7, 8].

Internal factors and external factors can affect the price of a stock in the capital market. Financial performance, company condition and sales are examples of internal factors. Meanwhile, the external factors are social and political conditions. There are various ways to measure company performance, one way is to use financial ratios. Solvency ratio, liquidity ratio, activity ratio, and profitability ratio are the financial ratios[9].

LITERATURE REVIEW

Financial Report

Number 1 of the Statement of Financial Accounting Standards (PSAK) for 2015 states the definition of financial statements as: "Financial statements are a systematic presentation of the financial position and financial performance of an entity. The purpose of financial statements is to provide information about the

financial position, performance, and changes in financial position of an entity that is useful to most users of financial statements for making economic decisions.”

Financial Ratio Analysis

According to [1], the definition of financial ratio analysis:

“Financial ratio analysis is the activity of comparing the numbers contained in financial statements by dividing one number with the other.”

Stock Price

The definition of share price is to determine shareholder wealth. An increase in shareholder wealth, in another sense, into the share price of the company [10, 11].

Liquidity Effect on Stock Price

In this study, Current Ratio measures the liquidity of the company. Current Ratio is a ratio used to evaluate the company's capability to fulfill its short-term obligations through the total current ratio available [1]. Research conducted by [10] showed that the current ratio affects stock prices significantly.

Profitability Effect on Stock Price

In this study, ROA measures the profitability of the company. ROA is a ratio that measures an effectiveness creating profits by utilizing the assets possessed by the company. The higher the ROA means the level of profit attained by the company will also be higher, because when earnings before interest and taxes rise, total assets will fall and ROA will also rise. This is inappropriate by [1, 2, 8] that states the ROA variable is affecting stock prices [12-15].

Liquidity and Profitability Effect on Stock Price

Internal factors and external factors affect stock prices according to [4]. Financial performance is one of the factors. Financial performance can be measured using financial ratios of liquidity and profitability.

Hypotheses

The hypotheses that can be made in this study based upon the literature review are:

H₁ : Profitability and liquidity partially affect stock prices.

H₂ : Profitability and liquidity simultaneously affect stock prices.

MATERIAL AND METHODS

Methods

The research conducted is an explanatory type of research. The reason why is to explain the influence between the objects under study. The objects studied are Current Ratio, Return on Asset, Stock Price, Liquidity, and Profitability. Meanwhile, Multiple linear regression analysis was used in this study and processed in the Eviews 9 program by setting a significance level (α) of 0.05 for hypothesis testing.

Descriptive Analysis

The analysis is done by displaying the average, minimum, middle, and maximum values:

Table 1

Descriptive Statistic

	ROA	CR	HS
Mean	1.914167	1.213333	5.806667
Median	2.120000	1.200000	5.887500
Maximum	2.790000	1.290000	9.925000
Minimum	0.180000	1.160000	2.120000
Std. Dev.	0.795595	0.045193	2.740128
Skewness	-0.910140	0.544060	0.063032
Kurtosis	2.931862	2.015779	1.454365
Jarque-Bera	1.659030	1.076349	1.202440
Probability	0.436261	0.583813	0.548142
Sum	22.97000	14.56000	69.68000
Sum Sq. Dev.	6.962692	0.022467	82.59132
Observations	12	12	12

Source : Output Eviews 9

In the ROA variable, average value is 1,914, the maximum value obtained is 2,790 and the minimum value is 0.180 with a standard deviation of 0.795. For the CR variable, average value is 1,213, the maximum value obtained is 1,290 and the minimum value is 1,160 with a standard deviation of 0.045. Then the HS variable obtained an average value of 5,806, the maximum value obtained was 9,925 and the minimum value was 2,210 with a standard deviation of 2,740.

Multiple Linear Regression Analysis

Table 2

Multiple Linear Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	77.48628	27.03726	2.865907	0.0286
ROA	1.709513	0.610231	2.801420	0.0311
CR	-61.77355	22.89654	-2.697943	0.0357
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.982390	Mean dependent var		5.806667
Adjusted R-squared	0.967715	S.D. dependent var		2.740128
S.E. of regression	0.492345	Akaike info criterion		1.727578
Sum squared resid	1.454420	Schwarz criterion		1.970031
Log likelihood	-4.365467	Hannan-Quinn criter.		1.637813
F-statistic	66.94370	Durbin-Watson stat		2.866450
Prob(F-statistic)	0.000035			

Source : Output Eviews 9

Based on the results, obtained equation from the multiple linear regression is:

$$HS = 77,486 + 1,709 ROA - 61,773 CR + \varepsilon \tag{1}$$

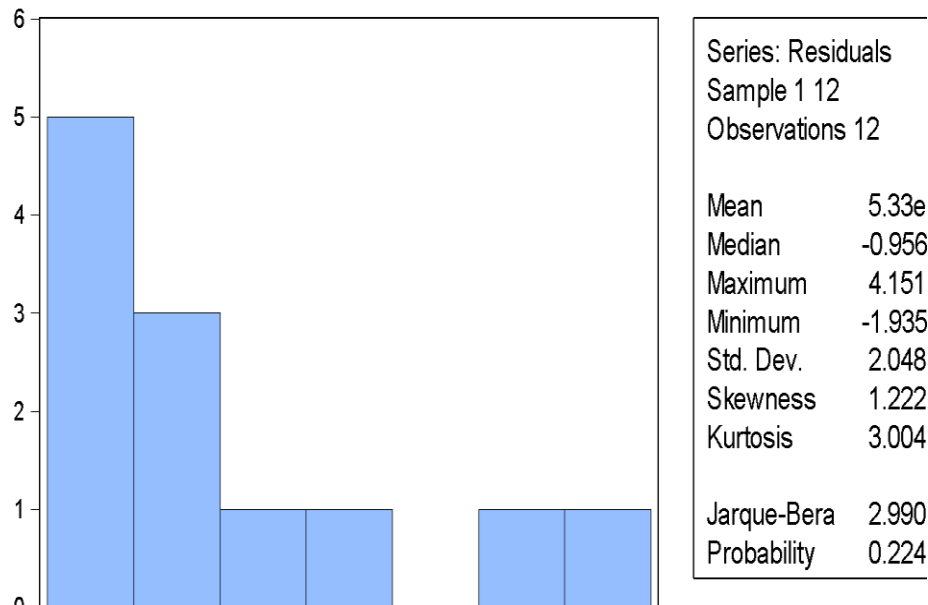
The regression equation above is a constant of 77.486. The constant shows that if we assumed that independent variables are constant, the dependent variable will increase by 77.486% with the variable coefficients:

The constant value of 77.48 indicates that if the independent variable is fixed or constant, then the stock price variable will be worth 77.486. The ROA variable has a positive effect on stock prices, this is indicated in the coefficient value. If we assume that the value of other variables remains constant when there is an increase in the ROA variable, then the value of the stock price will increase by 1,709. The CA variable has a negative effect on stock prices, this is indicated in the coefficient value. If we assume that the value of other variables remains constant when there is an increase in the CR variable, then the value of the stock price will be reduced by - 61,773.

Classic Assumption Test

Normality Test using Kolmogorov Sminov

Table 3. Normality Test One-Sample Kolmogorov-Smirnov Test



Source : Output Eviews 9

The outcome of the Kolmogorov-Smirnov test above shows a significance value of 0.224. The obtained significance value is 0.224, which is higher than the 0.05 error rate ($0.224 > 0.05$) so we can conclude that the regression model residual value is regularly distributed.

Multicollinearity Test

Table 3

Multicollinearity Test			
Variance Inflation Factors			
Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	462.7636	1082.683	NA
ROA	1.122236	11.14367	1.523430
CR	347.7946	1199.436	1.523430

Source : Output Eviews 9

We can see that each VIF value is 1.5234. With the criteria of VIF value < 10, we can conclude that in the regression model used there isn't any multicollinearity.

Heteroscedasticity Test

Table 4

Heteroscedasticity Test Result

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	0.272009	Prob. F(2,9)	0.7679
Obs*R-squared	0.684011	Prob. Chi-Square(2)	0.7103
Scaled explained SS	0.385663	Prob. Chi-Square(2)	0.8246

Source : Output Eviews 9

The outcome shows an obs*r-squared value of 0.680 and a significance value of 0.710. With a significance level of 5%, $0.710 > 0.05$, we can conclude that in this study there isn't any heteroscedasticity.

Autocorrelation Test

Table 6

Autocorrelation Test

Autocorrelation			
F-statistic	2.873735	Prob. F(2,7)	0.1227
Obs*R-squared	5.410457	Prob. Chi-Square(2)	0.0669

Source : Output Eviews 9

The outcome shows that the obs*r-squared value is 5.410 and the significance value is 0.066. With a significance level used of 5%, $0.066 > 0.05$ so it is concluded that in this study there isn't any autocorrelation on the dependent variable.

Table 7

Coefficient of Determination Test

Goodness Fit Test (Fit Model)

Coefficient of Determination Test			
R-squared	0.982390	Mean dependent var	5.806667
Adjusted R-squared	0.967715	S.D. dependent var	2.740128
S.E. of regression	0.492345	Akaike info criterion	1.727578
Sum squared resid	1.454420	Schwarz criterion	1.970031
Log likelihood	-4.365467	Hannan-Quinn criter.	1.637813
F-statistic	66.94370	Durbin-Watson stat	2.866450
Prob(F-statistic)	0.000035		

Source: Output Eviews 9

The outcome shows the R Square (R2) value is 0.982 and the Adjusted R Square value of 0.967. With the test outcome, it is explained that the stock price variable can be influenced by all X variables by 98%. This shows that the independent variable affecting the changes in the dependent variable is very strong. 0.20% is the remaining affected by other variables.

T-Test Results (Partial) Multiple Linear Regression

Table 8

T-Test Result

T-Test Result				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	77.48628	27.03726	2.865907	0.0286
ROA	1.709513	0.610231	2.801420	0.0311
CR	-61.77355	22.89654	-2.697943	0.0357

Source : Output Eviews 9

ROA → HS

H0: There isn't any statistically significant effect of the ROA variable on the HS variable

H1: There is any statistically significant effect of the ROA variable on the HS variable

Based on the test above, the t-value is 2.801 and the probability is 0.031. The significance level used is 5%, the value is 0.031 < 0.05 so that we reject H0. Thus, it we may deduce that the ROA variable has a substantial impact on stock prices.

CR → HS

H0: There isn't any statistically significant effect of the CR variable on the HS variable

H2: There is a statistically significant effect of the CR variable on the HS variable

Based on the test above, the t-value is 2.697 and the probability is 0.035. The significance level used is 5%, the value is 0.035. < 0.05 so that H0 is rejected, so we may conclude that the current ratio has a substantial impact on the stock price.

Test Results (Simultaneous) Multiple Linear Regression

Table 9

F Test			
F Test			
R-squared	0.982390	Mean dependent var	5.806667
Adjusted R-squared	0.967715	S.D. dependent var	2.740128
S.E. of regression	0.492345	Akaike info criterion	1.727578
Sum squared resid	1.454420	Schwarz criterion	1.970031
Log likelihood	-4.365467	Hannan-Quinn criter.	1.637813
F-statistic	66.94370	Durbin-Watson stat	2.866450
Prob(F-statistic)	0.000035		

Source : Output Eviews 9

Based on the test results, the F-statistic value is 66,943 with the probability value of 0.000. The significance level is 5%, 0.000 < 0.05 so rejecting H0 means that together the independent variables in this study have a significant effect on the dependent variable.

RESULTS AND DISCUSSION

We can deduce the following from the test results:

Return On Assets (ROA) and Current Ratio (CR) Effects on Stock Prices.

The significant value of the two variables shows a sig of 0.00, which means sig < 0.05. Therefore, Profitability and Liquidity simultaneously affect the Stock Price.

Return On Assets (ROA) Effect on Stock Prices

Stock prices are influenced by return on assets (ROA) and shows a t value of 2.801. The significance value (0.031) < 0.05 indicates that the Return on Assets (ROA) is significant to the stock price. It can be concluded that ROA has a significant positive effect on stock prices. The results of this study with the research of Haque & Faruquee (2013) showed the same results that ROA had a significant positive effect on stock prices.

Current Ratio (CR) Effect on Stock Prices

Based on the test results, Stock prices are negatively affected by the CR and shows a t value of -2.697. The significance value (0.035) < 0.05, indicates that Current Ratio (CR) is significant to the stock price. The Current Ratio (CR) is found to have a considerable impact on stock values. The results of this study with research by Trisnawati (2013) and Antara (2014) show the same results that CR has a significant negative effect on stock prices.

CONCLUSIONS

1. Partially, Profitability has a significant and positive impact. on the stock price of state-owned banks listed on the Indonesia Stock Exchange (IDX) for the 2017-2019 period.
2. Partially, liquidity has a negative and significant effect on the stock price of state-owned banks listed on the Indonesia Stock Exchange (IDX) for the 2017-2019 period.
3. Simultaneously, profitability and Liquidity affect the stock price of state-owned banks listed on the Indonesia Stock Exchange (IDX) for the 2017-2019 period.

REFERENCES

1. Herliza, H., O. Yulianti, and Z.I. Ferina, *Analysis of Financial Statements for Assessing Performance at PT. Enseval Putera Megatrading Tbk*. Journal of Indonesian Management (JIM), 2021. **1**(3): p. 217-222.
2. Prihartono, M.R.D. and N. Asandimitra, *Analysis factors influencing financial management behaviour*. International Journal of Academic Research in Business and Social Sciences, 2018. **8**(8): p. 308-326 DOI: <https://doi.org/10.6007/IJARBS/v8-i8/4471>.
3. Monsurat, I., *African insurance (spiritualism) and the success rate of cybercriminals in Nigeria: A study of the yahoo boys in Ilorin, Nigeria*. International Journal of Cyber Criminology, 2020. **14**(1): p. 300-315.
4. Nurdiniah, D. and E. Pradika, *Effect of good corporate governance, KAP reputation, its size and leverage on integrity of financial statements*. International Journal of Economics and Financial Issues, 2017. **7**(4).
5. Bolek, M. and W. Wili'nski, *The influence of liquidity on profitability of polish construction sector companies*. E-Finanse: Financial Internet Quarterly, 2012. **8**(1): p. 38-52.
6. Nalaka, S. and H. Diunugala, *Factors Associating with Social Media related Crime Victimization: Evidence from the Undergraduates at a Public University in Sri Lanka*. International Journal of Cyber Criminology, 2020. **14**(1): p. 174-184.
7. Brigham, E.F. and M.C. Ehrhardt, *Financial Management: Theory & Practice (Book Only)*. Vol. 32. 2013: Cengage Learning.
8. Nodeland, B. and R. Morris, *The Impact of Low Self-control on Past and Future Cyber Offending*. International Journal of Cyber Criminology, 2020. **14**(1): p. 106-120.
9. Brigham, E.F. and J.F. Houston, *Fundamentals of financial management*. Vol. 8. 2021: Cengage Learning.
10. Patma, K., et al., *Analysis of Motivation, Knowledge and Investment Education on Investment Interest in Capital Market*. Journal of Social Science, 2021. **2**(4): p. 394-399.
11. Rumokoy, F. and S.C. Tamunu, *The Influence of Fundamental Factors on Stock Return (Case Study: Company Listed in Lq45 2011-2014)*. Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi, 2015. **3**(4): p. 2859.
12. Kengatharan, N., *The Effects of Teacher Autonomy, Student Behavior and Student Engagement on Teacher Job Satisfaction*. Educational Sciences: Theory & Practice, 2020. **20**(4): p. 1-15.
13. Mehmet, S.A.K., *The role of ideal L2 self in predicting L2 willingness to communicate inside and outside the classroom*. Eurasian Journal of Applied Linguistics, 2020. **6**(2): p. 189-203 DOI: <https://doi.org/10.32601/ejal.775798>.
14. Rusman, A., *Model of Performance Improvement of Certified Teachers in Private Vocational Schools*. Eurasian Journal of Educational Research, 2020. **20**(86): p. 25-38 DOI: <https://doi.org/10.14689/ejer.2020.86.2>.
15. Noble, T. and P. Jandejsek, *Personal and Common Good–Personal and Common Evil. Liberation Theology perspectives*. European journal for philosophy of religion, 2020. **12**(4) DOI: <https://doi.org/10.24204/ejpr.v12i4.3527>.