

The Impact of Risk-Based Bank Rating on the Stock Price of Banking Companies Registered in Indonesia Stock Exchange

Djoko Hanantijo¹ Venny Febrinanda ² Harianto Respati³
1.Perbanas Institute, Jakarta, Indonesia
2.Perbanas Institute graduates, Jakarta, Indonesia
3.Faculty of Economics and Business, University of Merdeka Malang, Indonesia

Abstract

This study aims to determine which of the loan to deposit ratio, return on assets and capital adequacy ratio that has a dominant effect on stock prices in the banking industry in Indonesia. This study was conducted in the period 2011 to 2017. The population was all banks listed on the Indonesia Effect Exchange and carried out a self-assessment of GCG in accordance with the instructions of the central bank, Bank Indonesia. The amount of time series data observed was 112 units of analysis. The uniqueness of this research is conducting research on uncertain banking conditions, especially predicting the value of the company and the stock price. The results of the study are certainly beneficial for investors. Data analysis techniques used multiple linear regression. The results of the study prove that the Loan to Deposit Ratio (LDR) does not have a significant effect on the stock prices, Good Corporate Governance (GCG) has no significant effect on stock prices, Return on Assets (ROA) has a dominant influence significantly positive on stock prices and Capital Adequacy Ratio (CAR) have a significant positive effect on the stock prices.

Keywords: stock price, loan to deposit ratio, good corporate governance, return on assets, capital adequacy ratio

DOI: 10.7176/RJFA/10-24-01

Publication date: December 31st 2019

1. Introduction

Banking companies are one of the industries that participate in the capital market. Banking stocks are one of the stocks that are in great demand by investors. According to data sources on the 2017 IDX Fact Book, the total capitalization of the Indonesian capital market in 2016 was Rp 5,753,613 billion, of which Rp 1,339,854 billion or 23.29% came from the banking sub-sector, this figure shows that the banking sector plays an important role in the capital market compared to other sectors.

The stock price can be a guideline for the excitement and sluggishness of capital market activities. In addition, the prospect of an increase in stock prices is an attraction for investors to conduct share purchase transactions (Setyawan and Wisnu, 2012). According to Riyadi (2014), the valuation of a bank, in general, is seen in the banking stock price itself, as well as a benchmark for assessing the success of the company's management.

The following is the development of banking sector stock prices in Indonesia.

Table 1. Development of Share Prices on the Indonesia Stock Exchange in 2011 – 2017 (rupiah)

Keterangan	2011	2012	2013	2014	2015	2016	2017
IHSG	3.821,99	4.316,69	4.274,18	5.226,95	4.593,01	5.296,71	6.355,65
Sektor Perbankan	1.613,09	1.894,25	1.601,89	1.848,65	1.765,45	1.840,40	1.971,39

Source: Indonesia Stock Exchange (2018).

Table 1 explains the development of banking stock prices on the Indonesia Stock Exchange in the period 2011 to 2017. The development of stock prices appears to have fluctuated movements. Without using statistical tools, the relationship between the Composite Stock Price Index and the condition of the Banking Sector is difficult to predict. The movement of stock prices is thought to be influenced by many things such as the *BI rate* or the interest rates of the Central Bank in Indonesia (Riyadi, 2014), the inflation rate, and the rupiah exchange rate (Amperaningrum and Robby, 2011) for external factors, while from internal factors namely performance the company is measured by the bank's health level. Hendrayana and Gerianta (2015), that explains that if the company's performance rises, the company's value will also increase. High company value makes investors interested in the company for investment so there is a possibility that stock prices will rise.

The performance or health of a company is one of the factors considered by investors in choosing a company for investment. According to Setyawan and Wisnu (2012), an assessment of bank performance can be assessed from several indicators, the indicator uses four measurement factors, namely Risk Profile, Good Corporate Governance (Earnings), and Capital (Capital). These four factors become a unified value that becomes the final result of bank health rating, which is called Risk-Based Bank Rating (RBBR), this refers to Bank



Indonesia Regulation No: 13/1 / PBI / 2011 concerning Commercial Bank Health Assessment.

Risk Profile can be assessed using the LDR (Loan to Deposit Ratio) ratio. The results of previous studies by Sihombing and Yusuf (2015) that measure Risk Profile with LDR ratio prove there is a significant influence on the stock prices of banking companies. However, this research contradicts the study of Winarsih (2014) which also proves that LDR has no effect on changes in stock prices.

Good Corporate Governance (GCG), according to BI Decree No.9 / 12 / DPNP, the level of GCG assessment is carried out by self-assessment by the bank. The results of Hendrayana and Gerianta's research (2015) prove that "GCG has a positive and significant effect on changes in stock prices". However, Hendrayana and Gerianta's (2015) research is different in the direction from the research conducted by Setyawan and Wisnu (2012) which states that "GCG has a negative and significant effect on the stock prices of banking companies".

Earnings can be assessed using the ROA (Return On Assets) ratio. The results of previous studies show different results. Research conducted by Abdullah and Suryanto (2004) which proves that earnings measured by "the ROA ratio proved to have a positive and significant effect on stock prices". In contrast to the results of Takarini and Ukki's (2013) research, which proves that "the ROA ratio has no effect on changes in stock prices in banking companies". Capital can be measured using the CAR (Capital Adequacy Ratio) ratio. Previous research by Riyadi (2014) shows that Capital which is valued by the "CAR ratio has a positive and significant effect on bank stock prices". However, Riyadi's (2014) research is in different directions from the research conducted by Setyawan and Wisnu (2012) which proves that the "CAR ratio has a negative influence on the stock prices of banking companies".

The difference in research results regarding the relationship between Risk-Based Bank Rating and stock prices are interesting to do research especially in the banking sector related to the period of 2011 to 2017 where the banking sector experienced uncertain fluctuations between the Composite Stock Price Index and the financial condition of the banking sector (see Table 1).

Based on differences in research results and conditions in the banking sector fluctuations, the objectives of this study is analyzing the effect of Loan to Deposit Ratio (LDR), Good Corporate Governance (GCG), Return On Assets (ROA), and Capital Adequacy Ratio (CAR) on the price of shares of banking companies listed on the Indonesia Stock Exchange in the period 2011 - 2017. The purpose of this study is to provide consideration for investors in buying shares for the banking sector.

2. Theory Review

2.1 Stock price

The stock price is "the price of a stock that occurs in the stock market at a certain time, which is determined by market participants and determined by the demand and supply of shares in the capital market" (Jogiyanto, 2008).

2.2 Loan to Deposit Ratio

According to Leon and Sonny (2007), "Loan to Deposit Ratio (LDR), is the level of a bank's ability to repay funds for withdrawals made by customers by relying on credit as a source of liquidity". This ratio can be formulated as follows:

2.3 Good Corporate Governance

Good Corporate Governance (GCG) is "a set of regulations and efforts to improve systems and processes in managing an organization by regulating and clarifying the relationships, authorities, rights and obligations of all stakeholders, including General Meeting of Shareholders (GMS), Board of Commissioners, and The Board of Directors (Hendro and Conny, 2014)". According to Bank Indonesia Circular Letter No.9 / 12 / DPNP, the level of GCG assessment is done by self-assessment by the bank.

2.4 Return On Assets

According to Riyadi (2006), Return On Assets (ROA) is "a profitability ratio that shows the ratio between profit (before tax) and total bank assets, this ratio shows the level of efficiency of asset management carried out by the bank concerned". ROA ratio can be calculated as follows (Leon and Sonny, 2007):



2.5 Capital Adequacy Ratio

Capital Adequacy Ratio (CAR) is "a ratio that measures the adequacy of capital that must be owned by banks based on Risk-Weighted Assets (RWA)". Riyadi (2006) said that CAR is "the ratio of the minimum capital requirement that must be owned by a bank". "CAR ratio is calculated by comparing bank capital (core capital + supplementary capital) with total RWA", thus the formula is as follows (Leon and Sonny, 2007):

2.6 Framework

1). Loan to Deposit Ratio (LDR) and stock prices.

LDR ratio shows a risk profile that is suspected to influence stock prices. The higher the LDR ratio, it shows the lower the ability of a bank to return customer funds or return customer loans. This condition is very risky for a bank because it can cause losses. If the bank has a high level of risk, it can cause a decrease in the value of the company, which in turn will have an impact on declining share prices. Research by Abdullah and Suryanto (2004) says that "LDR has a negative and significant effect on stock prices".

Whereas Hasbi (2010) and Riyadi (2014), said that "LDR had no significant effect on stock prices". The difference in opinion becomes the gap of this research to explain the real situation through the first research hypothesis, namely:

H1: Loan to Deposit Ratio (LDR) has a negative and significant effect on stock prices.

2). Good Corporate Governance (GCG) and stock price

GCG is strongly related to stock prices. If a company applies GCG, it can provide information about the company's management behavior.

According to BI Decree No. 9/12 / DPNP explains that the smaller the GCG score shows the quality of management of a bank is very good. This situation is an opportunity for a bank to make a profit. This means that the better the performance of GCG, investors will respond positively through rising stock prices.

Based on research conducted by Trisnadi (2014) and Setyawan and Wisnu (2012), said that "GCG has a negative effect on stock prices". Winarsih (2014) said that "GCG has a positive and significant effect on stock prices". But Bangun, et al. (2018) said that "GCG had no significant effect". Differences in direction and opinion, it is necessary to confirm the relationship between GCG and stock prices through the second research hypothesis, namely:

H2: Good Corporate Governance (GCG) has a negative and significant effect on stock prices.

3). Return On Assets (ROA) dan stock price

ROA ratio shows Earnings which is also a profitability ratio.

ROA is closely related to stock prices. If the ROA ratio increases, the company's profit also increases. This condition is attractive for investors to buy the company's shares, which in turn has an impact on the company's stock price increase.

The results of research by Abdullah and Suryanto (2004) and Hendrayana and Gerianta (2015) prove that "ROA has a positive and significant effect on stock prices". In contrast to the results of the study Takarini and Ukki (2013) prove that "ROA has no significant effect on stock prices". The reason for this difference in results is that there needs to be confirmed through a third research hypothesis, namely:

H3: Return On Assets (ROA) has a positive and significant effect on stock prices.

4). Capital Adequacy Ratio (CAR) dan stock price

CAR ratio related to Capital. CAR ratio is also related to stock prices.

The higher the level of CAR ratio so the greater the capital adequacy of a bank. The capital obtained can be used to anticipate risks. This condition also shows the position of the bank/company in a state of obtaining high profits. In the end, it will have an impact on rising share prices.

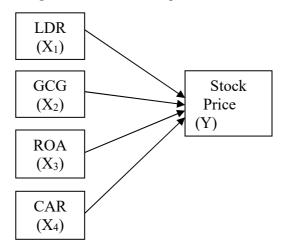
Based on research by Takarini and Ukki (2013) and Hasbi (2010), it has been proven that "CAR has a significant effect on stock prices". Riyadi (2014) and Winarsih (2014) also made the same conclusion that "CAR had a positive and significant effect on stock prices". In contrast to Hendrayana and Gerianta (2015) and Setyawan and Wisnu (2012), proving that "CAR has a negative and significant effect on stock prices". Differences in the direction of the results of this study, it is necessary to explain the relationship between CAR and stock prices in the period 2011 to 2017 through the fourth research hypothesis, namely:

H4: Capital Adequacy Ratio (CAR) has a positive and significant effect on stock prices.

Based on the research objectives previously described, the theoretical framework proposed in this research is as follows:



Figure 1. Research conceptual framework



3. Methodology

There are four independent variables studied, which consist of Risk Profile using the LDR, GCG ratio approach. Earnings are proxied by the ROA ratio, and Capital is proxied by the CAR ratio. While the dependent variable in this study is stock prices. The scope of this study is limited to banking companies listed on the Indonesia Stock Exchange (IDX), and the time horizon in this study is the period 2011-2017. The population in this study is all banks that have been listed on the Indonesia Stock Exchange (IDX). While the sample in this study refers to the following criteria:

- 1) Banks that are still listed on the Indonesia Stock Exchange (IDX) during the study period from 2011-2017.
- 2) Banks that carry out GCG assessments by self-assessment and have complete data in accordance with the needs of this study for 2011 to 2017.

The observed time series data is 112 units. The data analysis technique of this study is a panel data regression analysis technique assisted by the Eviews 10 program as a statistical calculation tool.

4. Research Results and Discussion

The classical assumption test results have concluded that the data are normally distributed and there are no multicollinearity, autocorrelation, or heteroscedasticity problems. The results of this test indicate that the data that has been analyzed really measures the actual state. Moreover, the regression equation model obtained shows good precision and is feasible as an analysis tool.

4.1 Uji Chow

The Chow Test is used to determine individual effects in the panel regression estimation model whether the model is estimated using the Fixed Effect Model (FEM) or Common Effect Model (CEM). The results of testing the effect of the model using the Chow test can be seen through the following table:

Table 2. Chow Test Results

Effect test	Statistic	d.f.	Prob.
Cross-section Chi-square	241.419341	15	0.000

As shown in Table 2, the results show that the chi-square test statistics in the Chow test for the influence of Loan to Deposit Ratio (LDR), Good Corporate Governance (GCG), Return On Assets (ROA), and Capital Adequacy Ratio (CAR) on stock prices produce probability value < level of significance ($\alpha = 0.05$), so H0 is rejected. Thus, the panel regression estimation model for the influence of Loan to Deposit Ratio (LDR), Good Corporate Governance (GCG), Return On Assets (ROA), and Capital Adequacy Ratio (CAR) on the price of bank shares listed on the Indonesia Stock Exchange was selected as Fixed Effect Model (FEM).

4.2 Uji Hausman

The Hausman test is used to determine individual effects in the panel regression estimation model whether the model is estimated using the Fixed Effect (FEM) or Random Effect (REM). The results of testing the effect of the model using the Hausman test can be seen through the following table:

Table 3. Hausman Testing Results

THOSE OF THE MOSTIVE TOOLING TESSURES				
Effect test	Statistic	d.f.	Prob.	
Cross-section Random	14.976568	4	0.0048	



As shown in Table 3, the results show that the test statistic in the Hausman test for the influence of Loan to Deposit Ratio (LDR), Good Corporate Governance (GCG), Return On Assets (ROA), and Capital Adequacy Ratio (CAR) on stock prices produce value probability <level of significance ($\alpha = 0.05$), so H0 is rejected. Thus the panel regression estimation model for the influence of Loan to Deposit Ratio (LDR), Good Corporate Governance (GCG), Return On Assets (ROA), and Capital Adequacy Ratio (CAR) on stock prices is the Fixed Effect Model (FEM).

4.3 Panel Regression Empirical Model

The panel data regression model used is a regression model with a Fixed Effect Model (FEM) approach. Based on the results of the Chow test and the Hausman test has strengthened to use a more appropriate approach that is the Fixed Effect Model (FEM). Following are the results of the panel data regression model using the Fixed Effect Model (FEM) approach:

Table 4. Regression Model Fixed Effect Approach

Variables	Coefficient	Std.error	t-stat	p.
LDR	0.010749	0.007661	1.403130	0.1639
GCG	-0.097303	0.105332	-0.923777	0.3580
ROA	0.131444	0.051050	2.574785	0.0116
CAR	0.033104	0.015238	2.172420	0.0324
С	5.656402	0.660248	8.567088	0.0000

Source: *Eviews 10*, (2018)

Based on Table 4, the regression equation is obtained as follows:

HS = 5.656402 + 0.010749 LDR - 0.097303 GCG + 0.131444 ROA + 0.033104 CAR

Note:

HS = Stock price

LDR = Loan to deposit ratio

GCG = Good corporate governance

ROA = Return on assets

CAR = Capital adequacy ratio

4.4 Determination Coefficient Test Results

The coefficient of determination (Adjusted R Square) reflects how far the dependent variable can be explained by the independent variable. The Adjusted R Square test results in Table 4 indicate the ability of a simple regression equation to explain the dependent variable. In this research model, independent variables consisting of Loan to Deposit Ratio (LDR), Good Corporate Governance (GCG), Return on Assets (ROA), and Capital Adequacy Ratio (CAR) with stock prices as the dependent variable have Adjusted R Square value (0.933113) or 93.3113% means that the share price variable can be explained by the Loan to Deposit Ratio (LDR) variable, Good Corporate Governance (GCG), Return on Assets (ROA), and Capital Adequacy Ratio (CAR) of 93, 3113% and 6.6887 percent were explained by other factors not examined.

4.5 Goodness of Fit Test (Uji F)

F statistical test is used to determine whether all independent variables in the equation model have a significant effect on the dependent variable (Ghozali, 2011). The F test results in Table 4 obtained the prob value (F-statistic) of 0.000000. The test results also indicate that the probability value <level of significance (α = 0.05). This shows that LDR, GCG, ROA, and CAR simultaneously have a significant effect on stock price variables. The equation model "HS = 5.656402+ 0.010749 LDR -0.097303 GCG + 0.131444 ROA + 0.033104 CAR" was accepted as the basis of the analysis tool in this study.

4.6 The t-test results (partial test)

The t-test is used to determine the effect of each independent variable on the dependent variable. Based on Table 4 for the t-test results, it can be explained as follows:

1). Effect of Loan to Deposit Ratio (LDR) on stock prices

The test results in Table 4 explain that the coefficient value obtained has a positive value of 0.010749 with a probability value of 0.1639. The resulting positive coefficient has a different direction towards the research hypothesis, this shows that the LDR has a positive influence on the value of the stock price. While the resulting probability value is greater than the significant level of 5 percent $(0.1639 > \alpha \ (0.05))$ so it can be concluded that the LDR does not have a significant effect on stock prices. Then it can be concluded that H1 was rejected.

Based on the research results, it has been obtained that partially the Loan to Deposit Ratio (LDR) does not have a significant effect on the stock prices of banking companies listed on the Indonesia Stock Exchange



during the period 2011 to 2017. This is because the safe limit of the LDR ratio is a maximum of 110 percent, while the average value of the LDR ratio in this study was 85.777929 percent, this figure can be said to be high and almost past the safe limit of the LDR.

The high LDR ratio shows that banks do a lot of lending. Large uncontrolled credit can cause high risks such as bad credit. This can be risky for banks because it can cause losses. If the bank is in a high-risk condition, it can have an impact on the decline in the value of the company according to investors' perceptions so as to reduce share prices. However, the results of this research indicate that high LDR ratios are not responded by investors to make investments so that they do not have an impact on stock prices.

2). Effect of Good Corporate Governance (GCG) on stock prices

The test results in Table 4 present the coefficient value that has been generated is a negative value of -0.097303 with a probability value (p.) Of 0.3580. The negative coefficient value has the same direction towards the research hypothesis, it can be stated that there is a negative influence for GCG on stock prices. While the probability value generated is greater than the significant level of 5 percent (0.3580> α (0.05)) so it can be concluded that GCG has no significant effect on stock prices. Then it can be concluded H2 was rejected.

Based on the results of this study, it was found that Good Corporate Governance (GCG) did not have a significant effect on the stock prices of banking companies listed on the Indonesia Stock Exchange in the period 2011 to 2017. According to the theory, GCG was declared very good if it was below 1.5, whereas the average of GCG in this study amounted to 1.747804, this figure can still be said to be good. The resulting GCG value shows that the quality of the company's management is very good so that the bank can make a profit. This means that the better the performance of GCG, the investors will give a positive response so that it can have an impact on increasing stock prices. But in this research, good GCG is not too responded by investors to invest in the banking sector. Therefore, it does not affect the stock price.

3). Effect of Return on Assets (ROA) on stock prices.

The test results in Table 4 show that the resulting Return on Assets (ROA) coefficient is a positive value of 0.131444 with a probability value (p.) Of 0.0116 less than the error rate of 0.05 so it can be concluded that ROA has an influence significant positive on stock prices. The resulting coefficient is positive, this is the same as the proposed research hypothesis. Thus H3 is accepted.

The results of the study prove that Return On Assets (ROA) has a significant positive effect on the stock prices of banking companies listed on the Indonesia Stock Exchange during the period 2011 to 2017. According to the theory, a good ROA ratio is at least 1.5 percent and the average value ROA in this study amounted to 2.205179 percent, meaning that it is still in good or healthy condition. The higher the ROA ratio, the profit or profitability of the company also increases, meaning that it is still an attraction for investors to make investments that will have an impact on stock price increases.

4). Effect of Capital Adequacy Ratio (CAR) on stock prices

The test results in Table 4 prove that the resulting coefficient is a positive value of 0.033104 with a probability value (p.) Of 0.0324. The resulting positive coefficient has the same direction in the proposed research hypothesis. The findings of this study indicate that there is a positive effect of CAR on stock prices as evidenced by the probability value (0.0324) less than α (0.05). Thus H4 is accepted.

Based on the results of the study, it is evident that the banking sector for the period of 2011 to 2017 that the Capital Adequacy Ratio (CAR) has a significant positive effect on the stock prices of banking companies listed on the Indonesia Stock Exchange. This is because a good CAR ratio is at least 8 percent and the average CAR ratio is 17.73473 percent, meaning that the bank has sufficient capital that can be used to anticipate risks, so as not to interfere with company profits. This condition can provide a positive response for investors to invest so that it has an impact on rising stock prices.

5. Conclusions, Limitations and Recommendations

5.1 Consclusion

During the period of 2011 to 2017 the banking sector experienced financial conditions as follows:

Loan to Deposit Ratio (LDR) does not have a significant effect on the stock prices of banking companies listed on the Indonesia Stock Exchange. High LDR ratios are not responded by investors to make investments so that they do not have an impact on stock prices.

Good Corporate Governance (GCG) has no significant effect on stock prices. Good GCG is not too responded by investors to invest in the banking sector. Therefore, it does not affect the stock price.

ROA has an influence significant positive on stock prices. The higher the ROA ratio, the profit or profitability of the company also increases, meaning that it is still an attraction for investors to make investments that will have an impact on stock price increases.

There is a positive effect of CAR on stock prices. This condition can provide a positive response for investors to invest so that it has an impact on rising stock prices.



5.2 Limitations

This study only takes a period of 7 years, namely from 2011 to 2017, so the data taken there may not reflect the company's condition in the long run. The research model is relatively simple because it only reveals the effect of LDR, GCG, ROA, and CAR on the stock prices of banking companies as measured through closing stock prices. There are still many other possible variables that influence but are not included in this study.

5.3 Recommendations

For banking management, it is suggested that there are a need for a more in-depth analysis of the Risk-Based Bank Rating (RBBR) ratios as a consideration of companies to determine the level of influence on changes in stock prices. In addition, banks always maintain health through the RBBR ratio instrument standard set by Bank Indonesia as a bank authority throughout Indonesia.

For investors, the results of the study can be an interesting recommendation to conduct a deeper analysis to determine the health condition of the bank by conducting an analysis using the RBBR ratio instrument. At a certain point, investors may take action to buy banking shares. These points become the most experienced experience for investors to make investments.

For future researchers, it is recommended to add other variables or use variables outside this research variable as independent variables such as inflation, the rupiah exchange rate, and others. In order to obtain more varied results that can describe other conditions that affect stock prices. In addition, the time period needs to be a concern for future researchers.

References

- Abdullah, Fariz and L.Suryanto. (2004). Analysis of the Effect of CAMEL Ratios as an Assessment of the Soundness of Banks on the Stock Prices of Banking Companies Listed on the Jakarta Stock Exchange. *Jurnal Studi Manajemen dan Organisasi*. Vol.1 No.2.
- Amperaningrum, Izzati and Robby S.A. (2011). The Effect of SBI Interest Rates, Currency Exchange Rates and Inflation Rates on Changes in the Stock Prices of the Banking Sub Sector in the Indonesia Stock Exchange. Proceeding PESAT (Psikologi, Ekonomi, Sastra, Arsitektur, and Sipil). Vol. 4.
- Bangun, Nadia J.M. Dadan Rahadian, and Tieka Trikartika G. (2018). Analysis of the Effects of Bank Health Using the Risk-Based Bank Rating Method on Stock Prices in the Banking Sector, Listing on the Indonesia Stock Exchange for the 2012-2016 Period. E-Proceeding of Management. Vol. 5 No. 2.
- Bank Indonesia. Bank Indonesia Regulations. (http://www.bi.go.id, diakses 1 Juni 2018).
- Ghozali, Imam. (2011). *Multivariate Analysis Application with the IBM SPSS 20 Program*. Sixth Edition. Semarang. Diponegoro University Publisher Agency.
- Hasbi, Hariandy. (2010). The Influence of Banking on Financial Performance to Stock Price in Indonesia. 3rdInternational Conference on Quantitative Methods Used in Economics and Business (ICQMEB).(http://http://repository.widyatama.ac.id/xmlui, accessed February 1, 2017).
- Hendrayana, Putu W and Gerianta W.Y. (2015). Effect of RGEC Components on Changes in Banking Company Stock Prices on the Indonesia Stock Exchange. *E-Jurnal Akuntansi Universitas Udayana*, Vol.11 No.1 (http://ojs.unud.ac.id, accessed June 1, 2016).
- Hendro, Tri and Conny T. R. (2014). Banks and Non-Bank Financial Institutions in Indonesia. Yogyakarta: UPP STIM YKPN.
- Jogiyanto. (2008). Portfolio Theory and Investment Analysis. Fifth Edition. Yogyakarta: BPFE.
- Leon, Boy and Sonny Ericson. (2007). Non-Foreign Exchange Bank Liabilities Assets Management. Jakarta: PT Grasindo.
- Riyadi, Selamet. (2006). *Banking Assets and Liability Management*. Third Edition. Jakarta: University of Indonesia Faculty of Economics Publisher Institute.
- . (2014). Analysis of the Influence of Financial Performance, BI Rate, and Earning Per Share Against the Stock Price of BUMN Banks on the Indonesia Stock Exchange. *Wahana*. Vol. 17. No. 2.
- Setyawan, Aditya W.P, and Wisnu Mawardi. (2012). The Effect of Risk-Based Bank Rating Components on the Stock Prices of Banking Companies Going Public on the Indonesia Stock Exchange (BEI) in 2008-2011. *Diponegoro Business Review*.Vol.1 No.1.
- Sihombing, Freddy L and Yusuf Budiana. (2015). The Effect of Bank Health Using the Risk-Based Bank Rating Method on the Stock Prices of Banking Companies Going Public on the Indonesia Stock Exchange in 2009-2014. *Jurnal Universitas Telkom*.
- Takarini, Nurjanti and Ukki H.P. (2013). Impact of the Soundness of Banks on Changes in Stock Prices on Banking Companies Going Public on the Indonesia Stock Exchange. *Jurnal Neo-Bis*. Vol.7.No.2.
- Trisnadi, Irham F. (2014). Effect of Bank Soundness Using the Risk-Based Bank Rating Method on the Stock



Prices of Banking Companies Going Public on the Indonesia Stock Exchange in 2011-2013. *Jurnal Universitas Telkom*.

Winarsih. (2014). Analysis of Bank Soundness Based on Risk-Based Bank Rating and Its Effect on Share Prices. *Jurnal Akuntansi Indonesia*. Vol.3.No.1.