THE EFFECT OF BANKING FINANCIAL SOUNDNESS ON STOCK PRICES TO
EARNINGS AND CAPITAL VARIABLES

Neli Hajar¹, Muhammad Tho’in², Musta’an³
Universitas Selamat Sri Kendal¹, Institut Teknologi Bisnis AAS Indonesia², Universitas Sahid Surakarta³
Email: thoinsyakira@yahoo.com

Abstract: This research aims to determine the effect of banking soundness on stock prices as measured by several variables that are Earning and Capital. Earnings variables are ROA and NIM, while the Capital variable uses CAR. Banking that are the object of research are state-owned banks on the IDX 2011-2018. This research is quantitative descriptive. The independent variables of the research are ROA, NIM, and CAR, while the dependent variable is the stock price. The population in this study were 4 state-owned banks, namely BRI, BNI, BTN, and Mandiri Bank. The research sample is the assessment of the level of health with Earnings (ROA, NIM) and Capital (CAR) from financial reports published through http://www.idx.co.id. The data collection techniques using non-participant observation methods and financial reports. The data analysis technique used are descriptive statistical tests, classical assumption tests, while hypothesis testing was carried out by using multiple linear regression, t test, F test, and R² test. The results showed that the Earning variable with ROA assessment and the Capital variable with CAR assessment had a positive and significant effect on stock prices, while the Earning variable with NIM assessment had a negative and significant effect on stock prices.

Keywords: Bank soundness; stock price; earnings; capital

1. Introduction
Banking is the driving force of the economy as well as financial institutions that have a very important role in various economic activities in society, through the various products it develops and owns, banks can serve the wants and needs of various economic sectors and various trades (Hirakata, Sudo, & Ueda, 2011). With the rapid development of information technology, especially in the world of trade, banks are taking an active role in smoothing the speed of national and international trade payment traffic (Suominen, 2017). Thus, banking financial performance must be able to describe circulation activities and healthy financial conditions in order to support economic and trade development (Permana & Aji 2012) (Lewis & Oyserman, 2016).

In general, financial institutions such as banks, the better their performance and financial soundness, the higher the profits they get, which in the end will be the higher the level of profits that will be received by the banking investors (Farook, Hassan, & Clinch, 2014). Thus, the higher the probability that the share price will increase due to good banking performance as evidence that the bank is healthy, thus gaining more confidence for customers as service users (Issah & Ngmenipuo, 2015); (Indriani, & Dewi, 2016). With better and increasing performance, more and more potential investors will want to buy shares, which in the end will also automatically increase the stock price (Evans, Hodder, & Hopkins, 2014); (Fahlevi, Asmapane, & Oktavianti, 2018).

State-owned banks in Indonesia, namely BRI, BNI, BTN, and Bank Mandiri have unquestionable track records and existence, the financial statements of these banks which are published annually show and illustrate the extent to which they have achieved financial performance so far, How is the level of
the bank's share price in the midst of society as a government bank that has gone public, of course, is the concern of investors in determining the investment they will make (Vireyto & Sulasmiyati, 2017).

There are many variables in assessing the level of banking soundness. Among these variables are earnings and capital variables, which are part of RGEC or CAMEL. Earnings, in this case, is the bank's ability to obtain income from business activities in the form of profits or profits, in other words, earnings are a tool for assessing banking income (Leventis, Dimitropoulos & Anandarajan, 2011); (Jin, Kanagaretnam & Liu, 2018); (Dayag & Trinidad, 2019). The greater the profit or profit the bank gets, it shows that the bank's performance is getting better and its finances are in a healthier condition and position. The earnings variable that is often used in assessing banking income is the Return on Assets (ROA) assessment and the Net Interest Margin (NIM) assessment.

A banking financial institution can be assessed and said to be in the healthy category if it has adequate and strong capital, with adequate and strong capital, the bank is able to carry out various operations and is able to provide guarantees for various assets that are in trouble (Zaki, Bah & Rao, 2011); (Margaretha & Setiyaningrum, 2011); (Tho'in, Irawati, & Lee, 2018). The assessment of the existing banking capital aspects focuses on the size of the capital adequacy owned and the capital composition of the bank, its projected capital, the ability of capital to cover various problem assets, as well as various plans for the existence of such capital to expand the bank's business. The soundness level of a bank which is assessed from the aspect of its capital can be measured in general with the Capital Adequacy Ratio (CAR). The use of measurement with this ratio can illustrate the ability of the bank to use its own capital to cover the decline in assets caused by losses arising from the use of these assets (Akbar, 2016); (Tho'in, 2019); (Uhde & Heimeshoff, 2009). This CAR value can be obtained by comparing the bank's own capital with Risk Weighted Assets or often abbreviated as RWA.

Investment activities carried out by a person or company are generally carried out on a number of funds in real assets such as land investment, gold investment, and buildings as well as investment in financial assets such as investment deposits, stock investments, and bonds (Strokov, 2014). Stocks here are one of the most promising investments and are in great demand, this is because stocks are able to provide a very high level of return even though they also have a level of risk that is directly proportional.

From the description above, it is very interesting to conduct research on the effect of the financial health level of banks on stock prices by using the earnings variable (ROA & NIM) and using the variable capital (CAR) in state-owned banks on the IDX in 2011-2018.

2. Research Methodology
This research is quantitative descriptive. The independent variables of this research are ROA, NIM, and CAR, while the dependent variable is the stock price. The population in this research were 4 state-owned banks, namely BRI, BNI, BTN, and Mandiri Bank for the period 2011-2018. The research sample is the assessment of the level of soundness with Earning (ROA, NIM) and Capital (CAR) from financial reports published through http://www.idx.co.id. Data collection techniques using non-participant observation methods and financial reports. The data analysis technique used descriptive statistical tests, classical assumption tests, while hypothesis testing was performed using multiple linear regression, t test, F test, and R² test.

3. Research Result and Discussion
3.1. Multiple Linear Regression Test

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>Std Error</th>
<th>T_count</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2012.138</td>
<td>1003.467</td>
<td>-2.005</td>
<td>0.055</td>
</tr>
</tbody>
</table>

Table 1. Multiple Linear Regression Test Result
From the table above, we get the multiple regression model equation:

\[ Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + e \]

\[ Y = 2012.138 + 357.337 X_1 - 81.689 X_2 + 918.736 X_3 \]

To interpret the results of the analysis, it can be explained:

a. A constant of 2012.138 with positive parameters indicates that if there is no ROA, NIM, and CAR, it means that the stock price will still increase by 2012.138.

b. The regression coefficient \( X_1 = 357.337 \), namely ROA shows that the increasing ROA will be able to increase the stock price and vice versa, assuming the NIM and CAR are constant.

c. The regression coefficient \( X_2 = -81.689 \), that is, NIM shows that the decline in NIM will be able to reduce stock prices and vice versa, assuming ROA and CAR are constant.

d. The regression coefficient \( X_3 = 918.736 \), that is, CAR shows that the increasing CAR will increase the stock price and vice versa, assuming ROA, NIM is constant.

3.2. Uji t

<table>
<thead>
<tr>
<th>Variable</th>
<th>( T_{count} )</th>
<th>( t_{table} )</th>
<th>Sig.</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>7.458</td>
<td>±2.045</td>
<td>0.000</td>
<td>( H_1 ) accepted</td>
</tr>
<tr>
<td>NIM</td>
<td>-0.850</td>
<td>±2.045</td>
<td>0.403</td>
<td>( H_2 ) rejected</td>
</tr>
<tr>
<td>CAR</td>
<td>5.060</td>
<td>±2.045</td>
<td>0.000</td>
<td>( H_3 ) accepted</td>
</tr>
</tbody>
</table>

From the results of the table above, it can be seen that the t test results for ROA, NIM, and CAR on stock prices.

a. The test results of the effect of the ROA variable \( (X_1) \) on stock prices \( (Y) \), where \( t \) is greater than \( t_{table} \) (7.458 > 2.045). This shows that ROA \( (X_1) \) has a significant effect on stock prices or because \( t_{sig} \) (0.000) is less than 0.05 \( (\alpha) \), ROA \( (X_1) \) has a significant effect on stock prices.

b. Test the effect of the NIM variable \( (X_2) \) on stock prices \( (Y) \), where \( t \) count is smaller than \( t_{table} \) (-0.850 < 2.045). This shows that NIM \( (X_2) \) has a negative effect on stock prices or because \( t_{sig} \) (0.403) is greater than 0.05 \( (\alpha) \), significantly NIM \( (X_2) \) has a negative effect on stock prices.

c. Test the influence of the CAR variable \( (X_3) \) on stock prices \( (Y) \), where \( t \) count is greater than \( t_{table} \) (5.060 > 2.045). This shows that CAR \( (X_3) \) has a significant effect on stock prices or because \( t_{sig} \) (0.000) is less than 0.05 \( (\alpha) \), CAR \( (X_3) \) has a significant effect on stock prices.

3.3. F Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1.959E8</td>
<td>3</td>
<td>6.530E7</td>
<td>20.422</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>8.953E7</td>
<td>28</td>
<td>3197550.097</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2.854E8</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the table above, it can be seen that the F test results for ROA, NIM, and CAR on stock prices.

a. From the table above, we get the multiple regression model equation:

\[ Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + e \]

\[ Y = 2012.138 + 357.337 X_1 - 81.689 X_2 + 918.736 X_3 \]

To interpret the results of the analysis, it can be explained:

a. A constant of 2012.138 with positive parameters indicates that if there is no ROA, NIM, and CAR, it means that the stock price will still increase by 2012.138.

b. The regression coefficient \( X_1 = 357.337 \), namely ROA shows that the increasing ROA will be able to increase the stock price and vice versa, assuming the NIM and CAR are constant.

c. The regression coefficient \( X_2 = -81.689 \), that is, NIM shows that the decline in NIM will be able to reduce stock prices and vice versa, assuming ROA and CAR are constant.

d. The regression coefficient \( X_3 = 918.736 \), that is, CAR shows that the increasing CAR will increase the stock price and vice versa, assuming ROA, NIM is constant.

3.2. Uji t

<table>
<thead>
<tr>
<th>Variable</th>
<th>( T_{count} )</th>
<th>( t_{table} )</th>
<th>Sig.</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>7.458</td>
<td>±2.045</td>
<td>0.000</td>
<td>( H_1 ) accepted</td>
</tr>
<tr>
<td>NIM</td>
<td>-0.850</td>
<td>±2.045</td>
<td>0.403</td>
<td>( H_2 ) rejected</td>
</tr>
<tr>
<td>CAR</td>
<td>5.060</td>
<td>±2.045</td>
<td>0.000</td>
<td>( H_3 ) accepted</td>
</tr>
</tbody>
</table>

From the results of the table above, it can be seen that the t test results for ROA, NIM, and CAR on stock prices.

a. The test results of the effect of the ROA variable \( (X_1) \) on stock prices \( (Y) \), where \( t \) is greater than \( t_{table} \) (7.458 > 2.045). This shows that ROA \( (X_1) \) has a significant effect on stock prices or because \( t_{sig} \) (0.000) is less than 0.05 \( (\alpha) \), ROA \( (X_1) \) has a significant effect on stock prices.

b. Test the effect of the NIM variable \( (X_2) \) on stock prices \( (Y) \), where \( t \) count is smaller than \( t_{table} \) (-0.850 < 2.045). This shows that NIM \( (X_2) \) has a negative effect on stock prices or because \( t_{sig} \) (0.403) is greater than 0.05 \( (\alpha) \), significantly NIM \( (X_2) \) has a negative effect on stock prices.

c. Test the influence of the CAR variable \( (X_3) \) on stock prices \( (Y) \), where \( t \) count is greater than \( t_{table} \) (5.060 > 2.045). This shows that CAR \( (X_3) \) has a significant effect on stock prices or because \( t_{sig} \) (0.000) is less than 0.05 \( (\alpha) \), CAR \( (X_3) \) has a significant effect on stock prices.

3.3. F Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1.959E8</td>
<td>3</td>
<td>6.530E7</td>
<td>20.422</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>8.953E7</td>
<td>28</td>
<td>3197550.097</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2.854E8</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.4. \( R^2 \) Test

The \( R^2 \) analysis is performed to measure the amount of the ability to explain the independent variables (ROA, NIM, and CAR) to the dependent variable (Stock Price) in a regression model. The value of \( R^2 \) ranges from 0 < \( R^2 \) < 1 and the fit of the model is said to be better if the value of \( R^2 \) approaches 1, if \( R^2 = 1 \), it means that the percentage of the contribution of variables \( x_1, x_2, \) and \( x_3 \) to the dependent variable is 100%. If \( R^2 = 0 \), it means that the variable cannot be used to make predictions.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.828</td>
<td>0.686</td>
<td>0.653</td>
</tr>
</tbody>
</table>

The calculation results show that the coefficient of determination (Adj-\( R^2 \)) is 0.653. This means that 65.3%. This means that as much as 65.3% of the share price is affected by ROA, NIM and CAR. Meanwhile 34.7% is influenced by other variables.

Discussion

Based on the first hypothesis testing, it is known that stock prices are influenced by ROA of 357,337 with a significance level of ROA variable of 0.000 which is smaller than the significance level \( \alpha = 0.05 \), this means that ROA has a significant effect on share prices in state-owned banks in 2011-2018. The results of this study indicate that the stock market reacts to the earnings information of banking companies as measured by using ROA. Banks that show the ability to measure the effectiveness of company performance in obtaining profits by utilizing assets owned, or the greater the ROA the better the position of the bank. So, this will guarantee investors to invest in stocks will tend to increase and encourage an increase in share prices. In this study, ROA has a significant effect on stock prices.

Based on the second hypothesis testing, it is known that the NIM is -81.689 with a significance level of the NIM variable of 0.403 which is greater than the significance level \( \alpha = 0.05 \), this means that NIM has a negative and insignificant effect on share prices in state-owned banks in 2011-2018. The results of this research indicate that the stock market does not react to information on the profitability of banking companies as measured by using NIM. The annual NIM information on banks is unable to provide a signal for investors to make stock investment decisions. The results of this research also indicate that NIM has a negative effect on bank stock prices, which means that any increase in NIM will cause a decrease in banking stock prices.

Based on the third hypothesis testing, it is known that CAR is 918,736 with a significance level of the CAR 0,000 variable which is smaller than \( \alpha = 0.05 \), this means that CAR has a significant effect on share prices in state-owned banks in 2011-2018. The results of this research indicate that the CAR information for banks has received a reaction from the stock market, so that it can be a signal for investors to invest in the bank. Based on the results of statistical tests, it shows that every increase in CAR will cause an increase in stock prices.

4. Conclusion and Suggestion

Based on the results of the research and discussion above, it shows that the Earning variable with ROA assessment and the Capital variable with CAR assessment has a positive and significant effect on
stock prices, while the Earning variable with NIM assessment has a negative and significant effect on stock prices in state-owned banks during 2011-2018. Future researchers should be able to use other variable proxies in measuring stock prices such as adding other independent variables, and selecting more research samples of banks and companies listed on the IDX so that the relationship between variables can be more accurate.

References


