The Impact of Profitability, Leverage and Non-Performing Loan on Banking Stock Return

Irman Firmansyah

Faculty of Economic and Business, Universitas Siliwangi

This study aims to investigate several factors that influence stock returns on banks listed on the Indonesia Stock Exchange, including profitability, leverage, and Non-Performing Loans. Profitability is measured by net profit margin, leverage is measured by debt to equity ratio, and non-performing loans are a proxy of the amount of bad credit. The method used in this study is a quantitative method with research data obtained from 2014 to 2017. The analysis uses panel data regression analysis. The results showed that Net Profit Margin had no significant effect on Stock Returns, while leverage and Non-Performing Loans had a significant effect on Stock Returns.

Key Words: Stock Return; Bank; Indonesia Stock Exchange
INTRODUCTION

Capital Market is a means of funding for companies and institutions for investment activities. The capital market is one of the targets for banks to obtain funds from the public needed for their business activities. With the existence of this capital market will attract investors to invest their capital in the capital market, banks must be able to offer shares that have provided higher profits compared to other companies that are competitors between banking companies. One important thing for investors/shareholders when investing funds in company stock instruments is that they will definitely expect the highest possible return. With more and more enthusiasts to invest in the bank, the higher the share price. This shows that the company is able to provide large dividends for investors.

Return is the result obtained from investment activities. Returns are divided into two, namely realized returns (returns that occur or can also be referred to as actual returns) and expected returns (returns expected by investors) (Jogiyanto, 2010). The hope of obtaining a return also occurs in financial assets. A financial asset shows the willingness of investors to provide a certain amount of funds at this time to obtain a flow of funds in the future as compensation for the time factor during which the funds are invested and the risks borne. Thus investors are betting a present value for an expected value in the future.

Investors in financial assets also expect returns maximum! The hope to obtain return is endeavored to be realized by conducting analysis and efforts to take actions related to investment in shares. Therefore, it is necessary to know the factors that influence returns so that the hope of obtaining the maximum return can be achieved.

According to Jogiyanto (2010: 205) returns are divided into two types, namely:

1) Realized returns

   Realized returns are returns that have occurred. Realized return is calculated using historical data. Return realization is important because it is used as a measure of the company's performance. Realized returns or historical returns are also useful as a basis for determining expected returns and future risks.

2) Expected return

   Expected return is the return expected to be obtained by investors in the future. In contrast to the realized return which has already occurred, the expected return has not occurred. In this study using realized returns, namely returns that have occurred or returns that have actually occurred. According to Ang (1997), the better the company's performance as reflected in the ratios, the higher the company's stock returns. Likewise, if the economic conditions are good, then the stock price reflection will be good too.

Net Profit Margin (NPM) is one of the ratios commonly used to assess a company's profitability. NPM is the ratio between the profit after tax and the company's net sales. According to Horne and Wachowics (2001:224) Net Profit Margin is a measure of a company's profitability from sales after taking into account all costs and income taxes. The NPM ratio is used to measure the ability of bank management to generate profits as well as to determine the effectiveness of a company in managing its resources. The greater this ratio, the income managed by the bank will increase so that the possibility of the bank being in a troubled condition is getting smaller. Most investors will choose to invest their funds in companies that are not in trouble, because if a company experiencing the problems, it will have an impact on revenue receipts. This is because public trust in banks is decreasing so that the possibility of banks getting less and less profits. If the bank's income decreases, it will have an impact on stock prices. The stock price will decrease because investors' interest in investing in the bank decreases. So that the stock returns received by investors will decrease. According to Ang (1997) the greater the Net Profit Margin (NPM) means the more efficient the costs incurred, which means the greater the rate of return on net profits, and the higher the stock return.

Several studies include Utami (2013), Kusmayadi, et al. (2018), Wangarry, et al. (2015), and Lastari (2017) show that NPM has a significant influence on stock returns. It has been successful in proving that NPM has a significant influence on stock returns. However, other studies have failed to prove that NPM is a factor capable of determining the level of stock returns (Dedi, 2012; Lacinka, et al., 2016; Safitri and Yulianto, 2015, and Syahedeh, et al., 2016).

Another important ratio is the Debt to Equity Ratio (DER) which shows the percentage of provision of funds by shareholders. The higher the ratio, the lower the funding provided by shareholders. DER is the ratio used to assess debt and equity by comparing all debt to all equity. A high DER shows that the composition of the total debt is greater than the total equity which will have an impact on the greater the burden borne by the company to external parties (creditors). This shows that the company is very dependent on external parties so that the higher the risk of a company. This will have an impact on investor interest in investing in the company and the decline in investor interest will affect the decline in stock prices which in turn will affect stock returns received by investors getting lower. Investors are not interested in investing in companies that have a high DER, because the higher this ratio, the higher the financial risk of a company. According to Ang (1997) the higher the Debt to Equity Ratio (DER) indicates the greater the total debt to total equity. The company will also show the greater the company's dependence on outsiders (creditors) so that the
company's risk level is even greater. This will have an impact on decreasing stock prices on the stock exchange, so that stock returns will decrease. The research results of Sulaeman, et al. (2018), Kusmayadi., et al. (2018), Utami (2013), Safitri and Yulianto (2015), Arief, et al. (2017) shows that DER has a significant effect on stock returns, while research by Lacinka, et al. (2016), Lastari (2017), Ningtyas, et al. (2018), Wangarry, et al. (2015) DER has no significant effect on stock prices.

Another factor that influences returns stock Non-Performing Loans, which is a comparison between total non-performing loans and the total loans issued by banks to debtors. A bank can be said to have a high level of non-performing loans if the number of non-performing loans (bad loans) is greater than the number of loans issued by the bank. If a bank has a ratio of Non-Performing Loans that is too high, it can interfere with its performance. Investors will perceive that the high ratio will reduce stock returns. Even a high NPL condition indicates a declining economic condition (Firmansyah, 2014). Research Anugrah, et al. (2016) and Sulaeman, et al. (2018) have proven that NPL has a significant effect on stock returns.

Based on the background above, this study will re-examine the banking sector listed on the Indonesia Stock Exchange regarding the effect of profitability, leverage and non-performing loans on stock returns.

**METODOLOGY**

**Population and Sampling**

Sampling technique in this study was selected using a purposive sampling method, namely the sample selected on the basis of suitability of the characteristics with the specified sample criteria. The criteria used to select the sample are:

2. Banking company that has complete financial reports and annual reports published on website the Indonesian Stock Exchange
3. The company publishes annual financial reports that have complete data regarding the variables needed in the research for 2014-2017.

After selecting 43 companies in the banking sector listed on the Indonesia Stock Exchange with the above criteria, a sample of 29 companies was obtained as shown in the following table:

<table>
<thead>
<tr>
<th>No</th>
<th>Code</th>
<th>Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BACA</td>
<td>Bank Capital Indonesia Tbk</td>
</tr>
<tr>
<td>2</td>
<td>BBCA</td>
<td>Bank Central Asia Tbk</td>
</tr>
<tr>
<td>3</td>
<td>BBKP</td>
<td>Bank Bukopin Tbk</td>
</tr>
<tr>
<td>4</td>
<td>BVIC</td>
<td>Bank Victoria International Tbk</td>
</tr>
<tr>
<td>5</td>
<td>BTPN</td>
<td>Bank Tabungan Pensiun Nasional Tbk</td>
</tr>
<tr>
<td>6</td>
<td>MAYA</td>
<td>Bank Mayapada International Tbk</td>
</tr>
<tr>
<td>7</td>
<td>NISP</td>
<td>Bank OCBC NISP Tbk</td>
</tr>
<tr>
<td>8</td>
<td>SDRA</td>
<td>Bank Woori Saudara 1906 Tbk</td>
</tr>
<tr>
<td>9</td>
<td>AGRO</td>
<td>Bank Rakyat Indonesia Agro Niaga Tbk.</td>
</tr>
<tr>
<td>10</td>
<td>BABP</td>
<td>Bank MNC Internasional Tbk.</td>
</tr>
<tr>
<td>11</td>
<td>BBNI</td>
<td>Bank Negara Indonesia (persero) Tbk.</td>
</tr>
<tr>
<td>12</td>
<td>BBRI</td>
<td>Bank Rakyat Indonesia ( persero ) Tbk.</td>
</tr>
<tr>
<td>13</td>
<td>BBTN</td>
<td>Bank Tabungan Negara (persero)</td>
</tr>
<tr>
<td>14</td>
<td>BDMN</td>
<td>Bank Danamon Tbk.</td>
</tr>
<tr>
<td>15</td>
<td>BEKS</td>
<td>Bank Pembangunan Daerah Banten Tbk.</td>
</tr>
<tr>
<td>16</td>
<td>BJBR</td>
<td>Bank Jabar Banten Tbk.</td>
</tr>
<tr>
<td>17</td>
<td>BJTM</td>
<td>Bank Pembangunan Daerah Jawa Timur Tbk.</td>
</tr>
<tr>
<td>18</td>
<td>BKSW</td>
<td>Bank QNB Indonesia Tbk.</td>
</tr>
<tr>
<td>19</td>
<td>BMAS</td>
<td>Bank Maspion Indonesia Tbk.</td>
</tr>
<tr>
<td>20</td>
<td>BMRI</td>
<td>Bank Mandiri (persero) Tbk.</td>
</tr>
<tr>
<td>21</td>
<td>BNBA</td>
<td>Bank Bumi Artha Tbk.</td>
</tr>
<tr>
<td>22</td>
<td>BNGA</td>
<td>Bank CIMB Niaga Tbk.</td>
</tr>
<tr>
<td>23</td>
<td>BNII</td>
<td>Bank Maybank Indonesia</td>
</tr>
<tr>
<td>24</td>
<td>BNLJ</td>
<td>Bank Permata Tbk.</td>
</tr>
<tr>
<td>25</td>
<td>BSIM</td>
<td>Bank Sinar Mas Tbk.</td>
</tr>
</tbody>
</table>
Variable Operationalization

a. Stock Return
Measurement of returns according to market theory can be formulated as follows (Jogiyanto, 2016: 264):

\[ R = \frac{Pt - (Pt - 1)}{Pt - 1} \]

Description:
- \( R \): capital gain / loss
- \( Pt \): closing price of stock I in the period t (closing/end period)
- \( Pt-1 \): closing price of shares I in the previous period

b. Net Profit Margin
The formula for calculating NPM (Kasmir, 2008:200):

\[ \text{Net Profit Margin} = \frac{\text{EAT}}{\text{Sales}} \]

c. Debt to Equity Ratio
According to Arief Sugiono (61: 2016 ), the Debt to Equity Ratio (DER) formula systematically is as follows:

\[ \text{Debt to Equity Ratio} = \frac{\text{Total Debt}}{\text{Capital}} \times 100\% \]

d. Non-Performing Loan (NPL)
Bank Indonesia (BI) through Bank Indonesia Regulations (PBI) stipulates that the ratio of non-performing loans (NPL) is 5%. The NPL calculation formula is as follows:

\[ \text{NPL Ratio} = \frac{\text{Total Bad Loans}}{\text{Total Loans}} \times 100\% \]

Technical Data Analysis

Data was analyzed using Panel Data Regression Analysis after passing the data quality test through the classical assumption test. In this study, the analysis technique uses the E-Views Program.

Panel Regression
According to Widarjono (2007:248) panel data regression analysis is a regression analysis based on panel data to observe the relationship between one dependent variable (Dependent Variable) and one or more independent variables (Independent Variable). As is known, panel data is a group between cross section data and time series. Cross section data is data collected at one time against many individuals (issuers). While the time series data is collected from time to time on an individual (issuer). So, the panel data model equation means cross section and time series data are collected into one panel (pooled data), then the panel data model equation is written as follows:

\[ Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \epsilon_t \]

Description:
- \( i = 1, 2, 3, \ldots, N \) (Number of Cross Section)
- \( t = 1, 2, 3, \ldots, T \) (Number of time series)

The amount of pooled data obtained is based on the number of cross section (N) and time series data (T), namely N x T, thus the number of observations is a number of N x T.

Multiple linear regression estimation aims to predict the regression parameters, namely the constant value (\( \beta_0 \)) and the regression coefficient (\( \beta_i \)). The constant is usually called the intercept and the regression coefficient is usually called the slope. Panel data regression has the same goal as multiple linear regression, namely predicting the intercept and slope values. The use of panel data and regression produces different intercepts and slopes for each company and at different times.

Model Selection
To estimate model parameters with panel data, there are three techniques (models) that are often offered, namely:

1. Common Effect Model

This technique is the simplest technique for estimating panel data model parameters. Namely by combining cross section and time series data as a single unit without looking at differences in time and entities (individuals). Where the approach used is the ordinary least square method.

With the ordinary least squares method, it will be assumed that the intercept and slope (coefficient of influence of the independent variable on the dependent variable) do not change either between individuals or over time. The Common Effect model can be formulated as follows:

\[ Y_t = \beta_0 + \beta_j X_{jt} + \epsilon_t \]
Description:
\[ Y_{it} = \beta_0 + \beta_j X_{it}^j + \varepsilon_{it} \]

\[ Y_{it} : \text{Dependent variable at time } t \text{ for unit cross section} \]
\[ \beta_0 : \text{Intercept} \]
\[ \beta_j : \text{Parameter for } j^{th} \text{ variable} \]
\[ X_{it}^j : \text{Independent variable } j \text{ at time } t \text{ for unit cross section } i \]
\[ \varepsilon_{it} : \text{Error component at time } t \text{ for unit cross section } i \]
\[ i : \text{Order of companies observed} \]
\[ t : \text{Time Series (urutan waktu)} \]
\[ j : \text{Order of Variables} \]

Model Selection
To choose the most appropriate model used in managing panel data, there are several tests that can be carried out, namely:

1. Chow Test
   - Chow Test This is a test to determine the most appropriate Fixed Effect or Random Effect model used in estimating panel data.

2. Hausman Test
   - Hausman Test is a statistical test to choose whether the Fixed Effect or Random Effect model is the most appropriate to use.

3. Lagrange Multiplier Test
   - Lagrange Multiplier Test is used to determine whether the Random Effect model is better than the Common Effect (OLS) method using the Lagrange Multiplier (LM) test.

RESULT AND ANALYSIS

Classical assumption test
The data that has been collected is first tested for the quality of the data through the classic assumption test which consists of the Normality Test, Multicollinearity Test, Heteroscedasticity Test and Autocorrelation Test.

Normality test
Data that is normally distributed has a p-value greater than 0.05. This test was carried out using the Jarque Bera Test contained in the e-views 9.0 software. The test results show that the p-value is 0.781219 meaning that the data in this study are normally distributed.

Multicollinearity test
The multicollinearity test aims to test whether the regression model found a correlation between the independent variables. This test is carried out by looking at the Variance Inflation Factor (VIF) value. If the tolerance value is \( \geq 0.10 \) or VIF \( \leq 10 \) then multicollinearity occurs. The results of calculating the value of the correlation coefficient using e-views do not exceed the tolerance limit so that it can be concluded that there is no multicollinearity assumption in the estimation of the research model.

Heteroscedasticity test
Heteroscedasticity test is used to see whether the residuals of the model formed have a constant variance or not. A good model is a model that has a constant variance of each disturbance or residual (homoskedastisitas). If the probability is \( > 0.05 \), it can be concluded that there is no heteroscedasticity. The test results show that the probability value of all independent variables is greater...
than 0.05, which means that heteroscedasticity does not occur.

**Autocorrelation test**
To detect whether there is autocorrelation is to look at the Durbin Watson values compared to the Durbin Watson tables (DL and DU). Criteria if DU < d count < 4-DU then there is no autocorrelation. Based on the test results, the value of DW = 2.074283 has been carried out. This value will be compared with the significance table value of 5% with a value of n = 116 and the number of independent variables (k = 3) with DU = 1.7504 so that the value of 4-du is 2.3555 from the test results it can be seen that the DW value is between du and 4-du then there is no autocorrelation.

**Panel Model Selection**
Based on the results of the Chow Test, it shows that the probability of Cross-section F is 0.0003 or <0.05, which means that the Fixed Effect Model is better than the Common Effect. Then the next step is to test the selection of estimates between the Fixed Effect and Random Effect models using the Hausman Test.

**Table 2: Chow test**

<table>
<thead>
<tr>
<th>Effects Test</th>
<th>Statistics</th>
<th>d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section F</td>
<td>2.767820</td>
<td>27,75</td>
<td>0.0003</td>
</tr>
<tr>
<td>Cross-section Chi-square</td>
<td>73.283440</td>
<td>27</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Source: Output Eviews

Furthermore, the results of the Hausman Test show that the Cross-Section Random 0.0001 so it is less than 0.05, which means that the Fixed Effect Model is more appropriate than the Random Effect Model. To determine the effect of Net Profit Margin (NPM), Debt to Equity Ratio (DER) and Non Performing Loans (NPL) on Stock Returns, multiple linear regression testing of panel data was carried out using the Fixed Effect Model tools Eviews.

**Table 3: Haussman test**

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>21.455817</td>
<td>3</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

Source: Output Eviews

**Panel Regression Analysis**
The results of panel data regression analysis can be seen in the following table:

**Table 4: Recapitulation of Panel Regression**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Profit Margin (X1)</td>
<td>0.108</td>
<td>0.3015</td>
</tr>
<tr>
<td>Debt to Equity Ratio (X2)</td>
<td>0.297</td>
<td>0.0401</td>
</tr>
<tr>
<td>Non Performing Loan (X3)</td>
<td>0.840</td>
<td>0.0000</td>
</tr>
<tr>
<td>R</td>
<td>0.792</td>
<td></td>
</tr>
<tr>
<td>R-square</td>
<td>0.709</td>
<td></td>
</tr>
<tr>
<td>F test</td>
<td>9,545</td>
<td></td>
</tr>
<tr>
<td>Prob (sig) F</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

Source: Output EViews

**The Impact of Net Profit Margin on Stock Return**
Based on the panel data results of the fixed effect, a significance value of 0.3015 (greater than 0.05) is obtained. Net Profit Margin has no significant effect on Stock Return or in other words the amount of Net Profit Margin in issuer banking listed on the Indonesian Stock Exchange has no impact on the amount of Share Return distributed. This is possible because the company is not focused on receiving Net Profit Margin only to pay returns to its shareholders. The results of this study are consistent with Syahedeh et al. (2016) which shows the result that Net Profit Margin has no significant effect on stock returns and research conducted by Hermawan (2012) which states that net profit margin partially has no effect on returns. Then the research conducted by Lacinka et al. (2016), Safitri and Yulianto (2015), and Syahedeh, et al. (2016) which states that NPM has no significant effect on stock returns.

**The Impact of Debt to Equity Ratio on Stock Return**
Based on the panel data results of the fixed effect, it is known that the significance value is 0.0401 or less than 0.05. So it can be concluded that the Debt to Equity Ratio has a significant influence on Stock Return or in other words the high or low level of the Debt to Equity Ratio ratio in an issuer banking company listed on the Indonesian stock exchange has an effect on the size of Stock Return that will be distributed by the company. This is possible if a company makes good use of its debt, it will be able to increase the productivity/performance of the company so that the company's income increases so that the company can also fulfill the obligations arising from the debt.

These results were reinforced by Susilowati (2011) and research conducted by Sulaeman, et al. (2018) which states that the Debt to Equity Ratio partially has a
significant effect on returns. Then research conducted by Kusmayadi, et al. (2018), Utami (2013), Safitri and Yulianto (2015), Arief, et al. (2017), Utami (2013) which states that the Debt to Equity Ratio has a significant influence on stock returns.

The Impact of Non-Performing Loan on Stock Return

Based on the results of the analysis, a coefficient value of 0.000 or less than 0.05 is obtained. It can be concluded that Non-Performing Loans have a significant influence on Stock Returns or in other words the high and low levels of the Non-Performing Loan in an issuer banking company listed on the Indonesian stock exchange has an effect on the size of Stock Return that will be distributed by the company. This can happen because the average increase in the percentage of NPLs in banks in Indonesia is still at a reasonable level, which is below 5% (Bank Indonesia regulations) and any increase in the percentage of NPLs is in line with the increase in share prices so that investors do not mind continuing to invest in the world of banking. These results are reinforced by the research of Anugrah, et al. (2016) which states that Non-Performing Loans have a significant returns, as well as research conducted by Sulaeman, et al (2018) which states that Non-Performing Loans have an influence on stock prices.

CONCLUSION

This study will examine the banking sector listed on the Indonesia Stock Exchange regarding the effect of profitability, leverage and non-performing loans on stock returns. Based on the studies that have been conducted, the following are some research conclusions. First, Net Profit Margin as a measure of profitability has no significant effect on Stock Return in banks listed on the Indonesia Stock Exchange. Furthermore, Debt to Equity Ratio as a measure of leverage has a significant effect on Stock Returns in banks listed on the Indonesia Stock Exchange. Finally, Non-Performing Loans as a measure of bad debts have a significant effect on stock returns in banks listed on the Indonesia Stock Exchange. This research needs to be developed in the future, for example by adding observational data and improving models and methods that are considered better. In addition, the sample of companies under study needs to be added so that the results are better and more robust, or also in terms of productivity and efficiency (Rani et al., 2017).

REFERENCES


Sulaeman, Maman, Hasan Fahmi Kusnandar, Gun Gun Gunawan, Meiyantri Widyaningrum, Sufia Widi Kasetyaningsih. 2018. Pengaruh Debt to Equity Ratio

Review on Islamic Accounting | http://journals.smarthinking.id/index.php/RIA November 2022 | Volume 2 Issue 1
The Impact of Profitability, Leverage and Non-Performing Loan on Banking Stock Return


