ANALYSIS OF THE EFFECT OF CAPITAL STRUCTURE ON FIRM VALUE IN BANKS LISTED ON THE IDX

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Abstract. Companies with going public can use the capital market to get additional capital or as alternative financing. With the capital market, companies can reflect on the financial condition and financial performance of their companies. This study aims to examine the capital structure of corporate values in banks listed on the Stock Exchange from 2016-2018. This study uses multiple linear regression analysis tools. Sampling in this study using a purposive sampling technique. Independent variables in this study are capital structure proxied by Current Asset Ratio, price-book value, Debt to Equity Ratio and the dependent variable in this study is Firm Value which is proxied by Price Earning Ratio. The results of this study indicate that CAR, PBV, DER have a positive effect on PER.

Keywords: capital structure, company value

PRELIMINARY

Management needs to pay attention to the interests of the owner or shareholder in running the company to be able to achieve the company's main goals. However, management can act for their interests and not for the company's interests. Such management behavior can affect a company's financial performance. Financial performance shows the success of the company is operating the company which is usually stated in financial statements. Information from financial statements serves as a tool for management accountability to shareholders and helps stakeholders, such as management, shareholders, governments, creditors, and other parties in making decisions related to the company.

Over time the financial decisions that have been set by management are very important to increase the value of the company. With the decision about capital structure is very important because it affects shareholder wealth (Salim and Yadav, 2012). Management's ability to generate profits also affects the value of the company. Because basically, management aims to maximize the profits of the company owner (Harmono, 2017). In the banking sector, there is a difference in capital structure compared to other sectors because the banking sector collects funds from the community and distributes it to the public.

According to Brigham and Erdadt (2005), firm value is the present value of future free cash flow at a weighted average discount rate of capital costs. Free cash flow is available to cash flow after taking into account all operational and investment expenses.

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Capital structure is the balance of the amount of fixed short-term debt, long-term debt, preferred stock and ordinary shares (Halim, 2007).

The findings of Mura doglu and Sivaprasad (2012) reveal that there is a positive relationship between the capital structure to firm value. Whereas the research conducted by Titman (1984), Rajan and Zingales (1995), Huang and Song (2006), and Oino and Ukaegbu (2015) states that the capital structure has a negative relationship to the value of the company.

Price Earning Ratio (PER) in banks in Indonesia from 2014 to 2018 has fluctuated from year to year. Based on the differences in the results of the research and the phenomena that occur, the researcher wants to examine the effect of capital structure on firm value.

**Research Hypothesis**
1. CAR influences Firm Value (PER) in the banking sector which is listed on the IDX.
2. PBV has an effect on Firm Value (PER) in the banks that are listed on the IDX.
3. DER has an effect on Firm Value (PER) in the banks that are listed on the IDX.

**Research purposes**
This study aims to determine the effect of:
1. CAR on Firm Value (PER) in the banking sector listed on the IDX.
2. PBV against Firm Value (PER) in the banking sector listed on the IDX.
3. DER for Firm Value (PER) in the banking sector listed on the IDX

**LITERATURE REVIEW**

**Capital Structure**

Capital Structure is the balance of the amount of fixed short-term debt, long-term debt, preferred stock and ordinary shares (Halim, 2007). In this study, the indicators used to measure capital structure are CAR, PBV, and DER.

According to Kasmir (2014) CAR is a ratio between capital and weighted assets and following government regulations. This ratio is important because by keeping the CAR at a safe limit (minimum 8%), it also protects customers and maintains overall financial system stability. The greater the value of CAR reflects the better banking ability in facing the possibility of risk of loss. Investors will assess the growth of company assets that can increase their production capacity so that they can increase company profits (Laksana, R.D., 2016). CAR can be obtained by dividing total capital by risk-weighted assets (RWA), such as the formula below

\[
\text{Capital Adequacy Ratio (CAR)} = \frac{\text{Own Capital}}{\text{RWA}}
\]

Price to Book Value (PBV) ratio is a ratio used to assess the performance of stock market prices on book value (Najmiyah et.al., 2014) This PBV is a ratio that has been widely used in various analyzes of world securities. This PBV ratio is defined as a comparison of the market value of a stock (stock market value) against the value of its book (company) so that we can measure the price level of the stock whether overvalued or undervalued. PBV formula:

\[
\text{Price to Book Value (PBV)} = \frac{\text{Price per share}}{\text{Book value per shareholders}}
\]
This Debt Equity Ratio is used to find out the financial leverage of a company which can be seen from how much the relationship between corporate debt and company capital (Sitanggang, 2014). The higher the DER value, the higher the risk of the company received.

DER is a ratio that assesses whether or not a company can pay short and long term debt with its own capital (Tjiptono and Hendy, 2011). Then the formula used to calculate Debt to Equity Ratio:

\[
\text{Debt To Equity Ratio (DER)} = \frac{\text{Debt}}{\text{Own capital}}
\]

**Firm Value**

Company value is the selling value of a company as a business that is operating (Sartono, 2010). In this study, the indicator used to calculate company value is Price Earning Ratio. PER is the ratio that shows the performance of the company's shares on company performance seen from earnings per share (Sugianto, 2008). The formula used to search for:

\[
\text{Price to Earnings Ratio (PER)} = \frac{\text{Share Price}}{\text{earning per share}}
\]

**CONCEPTUAL FRAMEWORK**

```
CAR (X 1)

PBV (X 2)

DER (X 3)
```

```
PER (Y)
```

**RESEARCH METHODS**

This study uses a purposive sampling system. Purposive sampling is a technique used to select samples with several considerations so that bias data is more representative. Data were taken from
www.idx.co.id the official website of the Indonesia Stock Exchange. The object of the study was taken from the sub-banks listed on the IDX, the population used in this study were 43 banks. The criteria for sample selection:
1. Companies that have data on Capital Adequacy Ratio (CAR), Price Book Value (PBV) Debt to Equity Ratio (DER) and Price to Earnings Ratio (PER) in annual financial statements.
2. Completeness of data during the 2016–2018 observation period
Based on the above criteria, 43 banks meet the requirements and can be sampled. Data processing techniques use the SPSS program.

RESEARCH RESULTS AND DISCUSSION

Data analysis
Normality test
Table 1 Normality Test Results

<table>
<thead>
<tr>
<th></th>
<th>Standardized Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>129</td>
</tr>
<tr>
<td>Normal Parametersa</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>.0000000</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>.9882177</td>
</tr>
<tr>
<td>Most Extreme</td>
<td></td>
</tr>
<tr>
<td>Absolute</td>
<td>.060</td>
</tr>
<tr>
<td>Positive</td>
<td>.060</td>
</tr>
<tr>
<td>Negative</td>
<td>-.032</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td>.687</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.733</td>
</tr>
</tbody>
</table>

a. Test distribution is Normal.

Source: secondary data that has been processed
Based on the above output it can be seen that the sig value. (2-tailed) of 0.733> 0.05. therefore Ho cannot be rejected. That means standardized residual values are declared to spread normally.

Multicollinearity Test
Table 4. Multicollinearity Test Results

<table>
<thead>
<tr>
<th>Variable Bebas</th>
<th>VIF</th>
<th>Keterangan</th>
</tr>
</thead>
<tbody>
<tr>
<td>CapitalAdequacyRatio</td>
<td>1.104</td>
<td>Non Multicollinearity</td>
</tr>
<tr>
<td>Price Book Value</td>
<td>1.367</td>
<td>Non Multicollinearity</td>
</tr>
<tr>
<td>Debt to Equity Ratio</td>
<td>1.275</td>
<td>Non Multicollinearity</td>
</tr>
</tbody>
</table>
Heterocedasticity test
Table 3. Heterocedasticity test

<table>
<thead>
<tr>
<th>Free Variable</th>
<th>Sig.</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Structure</td>
<td>0.190</td>
<td>Heterocedasticity free</td>
</tr>
<tr>
<td>Return on Assets</td>
<td>0.119</td>
<td>Heterocedasticity free</td>
</tr>
<tr>
<td>Firm size</td>
<td>0.144</td>
<td>Heterocedasticity free</td>
</tr>
</tbody>
</table>

Autocorrelation Test
Table 4. Autocorrelation Test

Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. An error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.427a</td>
<td>.182</td>
<td>.163</td>
<td>4.03745</td>
<td>1.481</td>
</tr>
</tbody>
</table>

Source: secondary data that has been processed

The autocorrelation test in this study used the Durbin-Watson test. Based on the Durbin-Watson table with n = 129 and k = 4, the value of dL = 1.4692 and dU = 1.7769 so that 4·dU = 2.2231

Equation of Multiple Linear Regression
Table 5. Regression equations

Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>10.796</td>
</tr>
<tr>
<td></td>
<td>CAR</td>
<td>.217</td>
</tr>
<tr>
<td></td>
<td>PBV</td>
<td>.690</td>
</tr>
<tr>
<td></td>
<td>DER</td>
<td>.243</td>
</tr>
</tbody>
</table>

a. Dependent Variable: PER

Based on the table above the regression equation is written as follows:

\[ Y = 10.796 + 0.217 X_1 + 0.690 X_2 + 0.243 X_3 \]

From table 1 above, it can be seen that the CAR coefficient value issued is 0.217 with a significance of 0.018 smaller than the alpha value (0.05), so Ho is rejected and Ha is accepted.
The PBV coefficient is 0.69 with a significance value of 0.013 smaller than the alpha value (0.05), so Ho is rejected and Ha is accepted.

The DER coefficient is 0.243 with a significance value of 0.080 smaller than the alpha value (0.05), so Ho is rejected and Ha is accepted.

**Determination Coefficient Test Results**

**Simultaneous Test (F Test)**

**Table 6. F Test Results**

<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>454.171</td>
<td>3</td>
<td>151.390</td>
<td>9.287</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>2037.627</td>
<td>125</td>
<td>16.301</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2491.798</td>
<td>128</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), DER, CAR, PBV

b. Dependent Variable: PER

The calculated F value is 9.287 and F table is 2.44 so that the variable partially affects DER.

**Partial Test (T Test)**

**Table 7. T Test Results**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>10.796</td>
<td>2.014</td>
<td></td>
</tr>
<tr>
<td>CAR</td>
<td>.217</td>
<td>.091</td>
<td>.203</td>
<td>2.393</td>
</tr>
<tr>
<td>PBV</td>
<td>.690</td>
<td>.272</td>
<td>.240</td>
<td>2.533</td>
</tr>
<tr>
<td>DER</td>
<td>.243</td>
<td>.137</td>
<td>.161</td>
<td>1.997</td>
</tr>
</tbody>
</table>

a. Dependent Variable: PER

*Source: secondary data that has been processed*

Based on the table above that if tcount> ttable where the variable CAR has a value of tcount 2.393 where it is greater than the value of ttable of 1.97897, so it can be concluded that the Asset Structure variable has a positive effect on PER. PBV variable has t count of 2.533 greater than t table of 1.97897, so it can be concluded that the variable PBV has a positive effect on PER. The DER variable has a t
count of 1.997 greater than 1.97897, so it can be concluded that the DER variable has a positive effect on PER.

CONCLUSION
Based on the results of the analysis and discussion that has been carried out, conclusions can be obtained as follows:
1. Capital Adequacy Ratio has a positive effect on the Price to Earning Ratio of banks listed on the IDX.
2. Price to Book Value has a positive effect on the Price to Earning Ratio of banks listed on the IDX.
3. Debt to Equity Ratio has a positive effect on the Price to Earning Ratio of banks listed on the IDX.

ADVICE AND IMPLICATIONS
1. Based on the research that has been done for financial managers, the company should pay attention to the value of CAR, PBV, and DER in running the company. Because CAR, PBV, DER have been shown to influence the value of the company.
2. In further research, you should add other variables that might influence the value of the company.
3. In this study carried out in the banking sector, so that further researchers may be able to conduct research in different sectors.
REFERENCES


[18] www.idx.co.id