Analysis of Factors Affecting Capital Structures in Companies Listed in Indonesia Stock Exchange Period 2010-2014

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Abstract

This research aims to analyze the factors that affect the capital structure of companies listed on the Indonesia Stock Exchange in the period 2010-2014. The variables studied were profitability, sales growth, asset structure and company size. This research is a comparative causal study. The data used is secondary data obtained from the site www.idx.co.id.The population in this study are all companies listed on the Indonesia Stock Exchange in the period 2010-2014. The sample selection is done by using purposive sampling method, so that as much as 1089 observational data are obtained. Analysis of the data used is multiple regression analysis. The results of this study indicate that the variable profitability, asset structure and firm size significantly influence the capital structure. The magnitude of the coefficient of determination (Adjusted R Square) is equal to 0.104. This means that 10.4% of the dependent variable that is capital structure can be explained by four independent variables namely profitability, sales growth, asset structure and company size. While the remaining 89.6% is explained by variables or other causes outside the model.

Keywords: Capital Structure, Profitability, Sales Growth, Asset Structure, Company Size.

Introduction

One of the company's goals is to increase the value of the company. Increasing company value can be done through funding decisions. Determination of funding decisions includes several considerations, namely whether the company will use funding sources that come from internal or external. Sources of funds originating from internal sources usually come from retained earnings and accumulated depreciation, while external sources of funds come from shareholders and debt. A good funding decision can be made by planning capital structure. Capital structure is a combination of long-term debt with equity (Fahmi, 2013: 184). A good capital structure is a capital structure where a company can use a combination of debt and equity optimally. An optimal capital structure is a capital structure that can maximize the value of the company or the price of shares (Husnan and Pudjiastuti, 2006: 263).According to Sutrisno (2013) in Hanun (2015) the determination of the capital mix in the company is important because any change in capital structure will affect the overall cost of capital which is caused because each type of capital has different capital costs. Besides that, the total capital cost will be a benchmark in making investment decisions. Many

companies in Indonesia have experienced bankruptcy due to unequal use of funding sources. One reason is excessive use of debt. As happened to the airline company PT Metro Batavia. Based on news reported from merdeka.com on Wednesday, January 30, 2013 PT Metro Batavia was declared bankrupt on January 30, 2013 on the Central Jakarta Commercial Court's decision letter No.77/Pailit/2011/PN.Niaga.Jkt.Pst. This bankruptcy was filed by one of its creditors, ILFC, because PT Metro Batavia was unable to repay debts that had matured until December 13, 2012 in the amount of US $ 4.68. Therefore, it is important for companies to know the factors that influence capital structure so they can make the right capital structure decisions. According to Brigham and Houston (2011) in Sawitri and Lestari (2015) there are 12 factors that influence the determination of capital structure decisions namely, sales stability, asset structure, *leverage* operating, business risk, growth rates, profitability, taxes, controls, management attitudes, measures corporate and financial flexibility. Meanwhile, according to Sartono (2001) in Bhawa and Dewi (2015) capital structure is influenced by seven factors namely the level of sales, asset structure, the level of company growth, profitability, profit and tax protection variables, company scale, as well as company internal conditions and macroeconomics. Of the several factors that influence capital structure, there are four factors that often arise in research such as profitability, sales growth, asset structure, and company size. However, there are inconsistencies from the results of previous studies. Where there are factors that have been proven to have a significant effect on one study, but have no significant effect on other studies. Therefore, the title of this research is "**Analysis of Factors Affecting Capital Structure at Companies Listed on the Indonesia Stock Exchange Period 2010-2014"**.

Literature Review

Pecking Order Theory

This theory was put forward by Brealey and Myers (1996) in Husnan and Pudjiastuti (2006: 278). In short this theory states that companies prefer internal funding. If external funding is needed, the company will issue the safest securities first. The issuance of securities will start from the issuance of bonds. If the funds needed are still insufficient, then new shares will be issued. According to Husnan and Pudjiastuti (2006: 278) in *pecking order theory* there is no optimal capital structure. Debt ratio is influenced by funding requirements. Specifically the company has a preference order (*hierarchy*) in the use of funds starting from retained earnings, debt, and finally the issuance of new shares.

Trade-Off Theory

Trade-off theory assumes that a company's capital structure is the result of a *trade-off* from the tax advantages of using debt with costs that will arise as a result of using that debt Ros *et al*. (2012) in Saputri and Margaretha (2014). *Trade-off theory* predicts that companies will choose debt as a source of funds as long as the benefits of additional debt are still greater than the losses due to the use of debt. According to Brealey, et al. (2007: 24) *trade-off theory* estimates that the debt ratio will vary from one company to another company. Companies with tangible assets with low risk and high taxable profits should use more debt, while companies with high risk assets should use less debt.

Effect of profitability on capital structure

Profitability of the previous period is an important factor in determining capital structure. This is because companies with high profitability tend to use relatively small debt because high retained earnings are sufficient to finance most of the funding needs. This is in accordance with the *pecking order theory* which states the preference for selecting the source of funds starting with retained earnings, debt, and finally the issuance of new shares. This is consistent with research conducted by Bhawa and Dewi (2015), Zuliani and Asyik (2014) and Saputri and Margaretha (2014) showing uniform results that profitability has a significant negative effect on capital structure. Based on the description above, the researchers propose the following hypothesis:

H1: Profitability has a negative effect on capital structure

The effect of sales growth on capital structure

The faster sales growth, the greater the need for funds to finance expansion. According to Brigham and Hauston (2001) in Siswantoro (2013) companies with high sales growth rates tend to use debt more than companies with low sales growth rates. Thus the greater the level of sales growth, the greater the level of debt. This is consistent with research conducted by Goey and Malelak (2014) and Sawitri and Lestari (2015) showing uniform results that sales growth has a significant positive effect on capital structure. Based on the description above, the researchers propose the following hypothesis:

H2: Sales growth has a positive effect on capital structure

Effect of asset structure on capital structure

According to Brigham and Houston (2006) in Widyaningrum (2015) a company with adequate assets or assets has a fixed term asset ratio Longer Larger will use more long-term debt because existing fixed assets can be used as collateral for debt. So it can be said that the asset structure can be used to determine how much long-term debt that can be taken by the company and this will affect the determination of the amount of capital structure. This is consistent with research conducted by Saputri and Margaretha (2014), Goey and Malelak (2014) and Margaretha and Ramadhan (2010) showing uniform results that the asset structure has a significant positive effect on capital structure. Based on the description above, the researchers propose the following hypothesis:

H3: Asset structure has a positive effect on capital structure

The effect of company size on the capital structure

Large companies that have been *well-estabilished* will be easier to obtain capital in the capital market compared to small companies. The ease of access gives companies the opportunity to make loans in larger amounts so that the company can grow and have the ability to generate greater profits. Smaller companies tend to have limitations in obtaining loans from the capital market**.** According to Chen and Strange (2006) in Indrajaya, et al. (2011) results from many studies conclude that company size is an important factor in determining capital structure, and many studies find that large companies use more debt than small companies. This is consistent with research conducted by Goey and Malelak (2014), Wiagustini and Pertamawati (2015) and Saputri and Margaretha (2014) showing uniform results that company size has a

significant positive effect on capital structure. Based on the description above, the researchers propose the following hypothesis:

H4: Firm size has a positive effect on capital structure

METHODS

Population and Samples

The population in this study are companies listed on the Indonesia Stock Exchange. The sampling technique in thisis *study purposive sampling*, which is a technique for determining non-random samples whose information is obtained by using certain considerations (Indriantoro and Supomo, 2002: 131). Some things that are considered in the sampling in this study are that they must meet the following characteristics. First, the company was listed on the Indonesia Stock Exchange in the period 2010-2014. If a new company is registered in that year or *delisted* in that year then the company cannot be used as a research sample. Second, the company is not a company engaged in the financial industry sector, because in general companies engaged in the financial sector have different characteristics from companies in other sectors. Third, the company has a positive capital structure.

Definition of Operational and Measurement Variables

Independent Variables (X)

Independent variables used in this study include:

1. Profitability (X1)

   Profitability is the company's ability to generate profits in a certain period. Profitability in this study is proxied by *return on assets* (*ROA*) with the following formula (Nugrahani and Sampurno, 2012):

   $$ROA = \frac{EAT}{\text{Total Assets}}$$

2. Sales Growth (X2)

   Sales growth is the percentage increase or decrease in sales from one period to the next. Sales growth is formulated as follows (Oktaviani and Malelak, 2014):

   $$Growth = \frac{\text{Sales(t)} - \text{Sales (t-1)}}{\text{Sales (t-1)}}$$

3. Structure Asset

   Structure asset is the ratio between fixed assets and total assets. The asset structure in this study is proxied by *Fixed Asset Ratio* (*FAR*) which is formulated as follows (Oktaviani and Malelak, 2014):

   $$FAR = \frac{\text{Fixed Assets}}{\text{Total Assets}}$$

4. Company Company

   Size is the size of operations carried out by the company in running its business. To measure the size of the company formulated as follows (Nugrahani and Sampurno, 2012):

   $$Size = \text{Ln (Total Asset)}$$

Dependent Variable (Y)

In this study the dependent variable is the capital structure. Capital structure is a combination of a company's long-term debt to the company's equity. The capital structure in this study is proxied by a *long term debt to equity ratio* (*LTDtER*) which is formulated as follows (Kasmir, 2012: 159):

$$LTDtER = \frac{Long\ Term\ Debt}{Equity}$$

Data Analysis Method

In this study, the hypothesis was tested with multiple regression analysis. Before being analyzed with multiple regression, the data is tested with classical assumptions with the aim that the regression model can produce unbiased predictors. Testing classic assumptions include tests of normality, multicollinearity, autocorrelation and heteroscedasticity. After the classic assumption test, the study continued with regression analysis and hypothesis testing.

DISCUSSIONS

Effect of profitability on capital structure

Hypothesis test results presented in table 4.12 show a significant value of t is 0,000. This value is <0.05, which means that profitability significantly affects the capital structure. Profitability has a value of t arithmetic of 5.007 with t table = 1.962 so that t arithmetic> t table. A negative t value indicates that profitability has an inverse relationship with capital structure. Thus, H1 which states profitability has a negative effect on capital structure is declared **supported.** The results of this study are consistent with research conducted by Bhawa and Dewi (2015), Zuliana and Asyik (2014), and Saputri and Margaretha (2014) where the higher the profitability, the lower the use of debt. However, the results of this study are not in line with research conducted by Nugrahani and Sampurno (2012) which states that corporate profitability has no effect on capital structure. That is because a company that hasa high level of profit allows the company to obtain some funding with retained earnings. The results of this study support the *pecking order theory* which states that the company will use internal funds first before using debt to meet funding needs.

Effect of sales growth on capital structure

The results of the hypothesis test presented in table 4.12 show a significant value of t 1.416. This value> 0.05, which means that sales growth has no effect on capital structure. Sales growth has a calculated value of 1.416 with t table = 1.962 so that t arithmetic <t table. Thus, H2 which states that sales growth has a positive effect on capital structure is declared **unsupported.** The results of this study are consistent with research conducted by Nugrahani and Sampurno (2015) and Zuliani and Asyik (2014), where ups and downs in sales growth have no effect on capital structure. However, the results of this study are not in line with research conducted by Oktaviana and Malelak (2014) and Sawitri and Lestari (2015) which states that sales growth affects the capital structure. The insignificance of the effect of sales growth on capital structure

in this study was due to indicator measurement factors. This is because the company's growth rate cannot be measured with certainty and cannot only be seen based on sales growth.

Effect of asset structure on capital structure

Hypothesis test results presented in table 4.12 show a significant value of t 0,000. This value is <0.05, which means that the asset structure significantly influences the capital structure. The asset structure has a calculated value of 7.406 with t table = 1.962 so t arithmetic> t table. A positive t value indicates that the asset structure has a direct relationship with the capital structure. Thus, H3 which states the asset structure has a positive effect on capital structure is declared **supported.** The results of this study are consistent with research conducted by Goey and Malelak (2014) and Sawitri and Lestari (2015). However, the results of this study are not in line with research conducted by Zuliani and Asyik (2014) which states that the structure of assets does not affect the capital structure. That is because large company assets can be used as collateral for creditors. Creditors may only give new debt to the company when the creditor gets a guarantee that provides certainty of protection for their interests. Guarantees that can provide certainty of protection for creditors are fixed assets owned by the company.

Effect of company size on capital structure

The results of the hypothesis test presented in table 4.12 show a significant value of t 0,000. This value is <0.05, which means that the size of the company significantly influences the capital structure. The size of the company has a value of t arithmetic of 0.043 with t table = 1.962 so t arithmetic> t table. A positive t value indicates that sales growth has a direct relationship with the capital structure. Thus, H4 which states the size of the company has a positive effect on capital structure is declared **supported.** The results of this study are consistent with research by Goey and Malelak (2014), Wiagustini and Pertamawati (2015) and Saputri and Margareta (2014) which state that large company size will increase or increase capital structure. However, the results of this study are not in line with the research conducted by Bhawa and Dewi (2015), Nugrahani and Sampurno (2012), and Sawitri and Lestari (2015) which states that company size has no effect on capital structure. That is because the larger the size of a company, the greater the funds needed to make an investment. In addition, companies with a larger size are considered more able to repay debt compared to smaller companies because large companies have more stable cash flow which is one of the conditions for fulfilling debt applications by creditors. This research supports the *trade of theory* which states that companies with tangible assets with low risk and high taxable profits should use more debt.

Conclusion

Based on research conducted on 286 companies listed on the Indonesia Stock Exchange (IDX) in the period 2010-2014, the following conclusions are obtained that profitability (*ROA*) has a significant negative effect on capital structure, which means companies with high profits use relatively small debt. . A high level of profit allows the company to obtain a portion of funding with retained earnings. Sales *Growth (Growth*) does not affect the capital structure, which means ups and downs in sales growth does not affect the capital structure. The insignificance of the effect of sales growth on capital structure in this study was due to

indicator measurement factors. This is because the company's growth rate cannot be measured with certainty and cannot only be seen based on sales growth. Asset Structure *(FAR*) has a significant positive effect on capital structure which means that the greater the fixed assets, the higher the debt. This is based on the creditor's confidence in the funds invested in the company guaranteed by the amount of assets owned by the company. Company size (*Size*) has a significant positive effect on capital structure. That is because companies with larger sizes are more likely to obtain capital in the capital market. In addition, large companies have a more stable cash flow which is one of the conditions for fulfilling debt applications by creditors.

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