Determinants of Debt Policy in Indonesia's Public Company

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ABSTRACT

This study is aimed at finding the factors that affect the public company's debt policy in Indonesia. The samples used in this study were non-financial companies listed on the Indonesia Stock Exchange (BEI) for the period 2007-2011. The independent variables in this study are firm size, tangibility of assets, profitability, tax rate, non-debt tax shield, and the industrial sector growth rate while the dependent is leverage. The analysis method used is multiple regressions. Based on the results of the t test showed that tangibility of assets, profitability and growth rate has an influence on leverage, while firm size, tax rate, non-debt tax shield and industry classification had no effect on leverage. These results demonstrate the company's management needs to consider factors that include tangibility of assets, profitability, and growth rate, the debt policy decisions.

Keywords : firm size, growth rate, industry sector, leverage, non debt tax shield, tangibility of assets, profitability, tax rate,

BACKGROUND

In globalization era, companies should able to control the funding structure in order to compete with other companies. This is one of the duties of a financial manager to determine the composition of the capital structure of the company. Capital structure decisions are important in supporting the company's operations in the company's decisions about spending. The capital structure decision involves a financial decision relating to the composition of debt, equity capital used by the firm (Ross et. al., 2011).

The financial manager should be able to raise funds both from within the company and outside the company efficiently, thus the funding decisions are the funding decisions that can minimize cost of capital borne by the company. Cost of capital arising from financing decision is a direct consequence arising from decisions made manager. When managers use debt, the cost of capital incurred by the interest charged by the lender, whereas if managers use internal funds or the funds themselves will arise of funds or capital used (opportunity cost) (Gitman and Zutter, 2012). Funding decisions are not made carefully will lead to fixed costs in the form of high cost of capital, which in turn could result in the company's profitability.

Trade off theory predicts that in finding the relationship between the values of the company's capital structure there is a level of leverage (debt ratio) are optimal (Modigliani and Miller, 1958). So that the level of leverage the company to move on from time to time to the targets. Furthermore, the pecking order theory suggests that funding decisions follow a hierarchy in which funding sources from within the company (internal financing) would take precedence over the source of funding from outside the company (external financing), however, the company should not be too much financed by debt. The use of excessive debt in a company can improve the ratio of bankruptcy. This can occur due to the inability of the company to make payment payable at maturity. When debt maturities become greater, investors would think twice about investing (Myers, 1984). In case the company uses outside funding, debt take precedence over the funding with additional capital from external equity.

The previously studies underlying this research is Khan (2010) in this study using the variables profitability, size, growth, asset tangibility, and firm age on leverage, as measured by total debt ratio. The results express the influence of profitability, size, growth, asset tangibility, and firm age to leverage. In evaluating the capital structure, the company stated that the strength of a company is reflected in the balance sheet and can be evaluated by a working capital adequacy, asset performance and capital structure. The composition of the company's capital or long-term permanent composed of a combination of debt and equity. Usage policies can utilize to increase the quantity of resources available to the company for growth and expansion. It can be seen that the company get more loans despite paying interest charges and fees on these funds. Basically the funding decision is an important decision for a manager who will determine the company to continue to progress and develop. One issue that is often discussed is the use of the capital structure of the rise from a loan fund or debt.

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LITERATURE REVIEW

1. The Influence of Firm Size and Leverage

Firm size is the magnitude of the company's assets (Gitman and Zutter, 2012), allowing large companies leverage levels will be greater than the smaller company. From the description it can be concluded that the small size of the company will affect the capital structure based on the fact that the larger a company will have a high growth rate, so the company will be more willing to issue a new stock and tend to use the loan amount will also increase. According to the trade of a different theory argued with the information asymmetry. Information asymmetries between the internal and external parties to large companies tend to be less than the smaller companies. In other words, information on large companies are more transparent or more accessible to outsiders, so companies tend to fund finances from internal sources of information, namely the equity through the capital market.

Research conducted by Khan (2010) found that there is a negative relationship between size with leverage.

From the description can be taken hypothesized that:

H_1: There is influence between firm size with leverage.

2. The Influence of Tangibility Asset with Leverage

The more asset tangibility of a firm means more collateral assets that can be used to obtain external funding in the form of debt. This is because the lender will ask for collateral assets to repay debts. Based on the trade off theory the tangibility asset is a positive effect on debt ratio. Companies with low fixed assets will have more asymmetric information problems compared to companies with high fixed assets (Deesomsak et. al, 2004). Companies with a high level of fixed assets in general are a big company can issue shares at a fair price so it does not use debt to fund investment. Thus, based on the pecking order theory, tangibility negatively affect debt ratio.

Based on the description above, it can be written the following hypothesis:

H_2: There is influence between tangibility of assets to leverage.

3. The Influence of Profitability with Leverage

Titman and Wessels (1988) explains that the company with a high rate of return on investment using a relatively small debt. Profitability is a relationship between income and expenses resulting from the use of corporate assets (current and fixed) in productive activities (Gitman and Zutter, 2012). Companies with high profitability tend to use a portion of the profits earned for investment and financing operations (Brigham and Huston, 2011).

A higher rate of return allowed finance of the funding needs with internally generated funds. In the view of the pecking order theory, the profitability of the company and the amount of income available to be detained is an important determinant of debt policy. Because the company that has the ability to generate high earnings in the past usually hold its retained earnings, retained earnings so high. If the company faced a good investment opportunity, the company will use retained earnings as a source of funding for investment, so the company does not need a debt.

Research conducted by Khan (2010) found that there is a positive relationship between profitability with leverage (total debt ratio).

Based on the description can be formulated the hypothesis that:

H_3: There is a leverage effect between profitability.

4. The Influence of Tax Rate with Leverage

Companies that use debt would pay tax less than companies that do not use debt, so companies that use debt can save tax. Tax is known as one of the factors that affect the capital structure. This opinion arose because companies with higher tax rates tend to benefit when using debt rather than using equity. Companies that use the debt will pay less tax than undebt companies. This is because the companies that use debt can save tax paid. In the end, the company is able to increase the value of the company and increase shareholder wealth. (Brigham and Huston, 2011).

Research conducted by Khan (2010) found that there is a negative relationship between the tax rates with leverage.

Based on the description can be formulated the following hypothesis:

H_4: There is an effect of the tax rate with leverage.

5. The Influence of Non debt tax shield with Leverage

In the capital structure, non-debt interest expense is the replacement shields to reduce corporate tax calculation (DeAngelo and Masulis, 1980). Based on the trade-off theory, the existence of non-debt tax shield is made using the company's debt to its full potential. Therefore, it should be a negative relationship between non-debt tax shield to debt ratio which can be avoided. This is consistent with research conducted by Deesomsak et al. (2004) who found a negative relationship between non-debt tax shield and debt ratio. Companies with non-debt tax shield high will tend to use less debt in the capital structure.

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Based on the description above, it can be formulated the following hypothesis:
H_5: There is the influence of the non-debt tax shield with leverage.

6. The Influence of Growth Rate with Leverage

Pecking order theory has two forms of relationships. The first is a company with high growth rates will tend to keep and maintain debt ratio at a low level (negative signal). The second form is a company with high growth rates will be expanded by the use of debt (positive sign). Both are regarded as the complexity of the pecking order theory (Deesomsak et.al, 2004). From the results of the study by Sheikh and Wang (2011), growth opportunities can negatively affect the company's debt ratio (negative signal). Meanwhile, according to Eldomiaty and Azim (2008) reveals to meet the funding structure, companies with high growth rates will be more use of debt.
Based on the description above, it can be formulated the following hypothesis:
H_6: There is the influence of the growth rate with leverage.

7. The Influence of Industry Sector with Leverage

Biger et al. (2008) explains that industry characteristics may affect the use of leverage. Industrial companies or manufacturing machinery and equipment can do financing with a smaller debt than the company's services. Once the research is done Titman and Wessels (1988) found the same thing.
Based on the description above, it can be formulated the following hypothesis:
H_7: There is influence between industry sector with leverage.

RESEARCH METHODOLOGY

Variable and Meassurement

Varaiable used in this study are firm size, tangibility of assets, profitability, tax rate, non-debt tax shield, and the growth rate as the independent variable or variables. Leverage as depeden or bound variable. The industry sector placed as a dummy variable. Where measurements of these variables can be seen as follows:

Table 1
Measurement of Variable

No	Variable	Indicator	Measurement
1.	*Variable Depeden*		
	Leverage	$\frac{\text{Total Debts}}{\text{Total Assets}}$	Ratio Scala
2.	*Variable Indepeden*		
	a. Firm Size	Natural log of sales	Ratio Scala
	b. Tangibility of Assets	$\frac{\text{Fixed Assets}}{\text{Total Assets}}$	Ratio Scala
	c. Profitability	$\frac{\text{Net Income}}{\text{Total Assets}}$	Ratio Scala
	d. Tax Rate	$\frac{\text{Income Tax}}{\text{Earnings Before Tax}}$	Ratio Scala
	e. Non Debt Tax Shield	$\frac{\text{Depreciation}}{\text{Total Assets}}$	Ratio Scala
	f. Growth Rate	$\frac{\text{Total Assets}_t - \text{Total Assets}_{t-1}}{\text{Total Assets}_{t-1}}$	Ratio Scala
3.	*Variable Dummy*		
	Industry Classification	Score= 1, if manufakturing company Score= 0, if non manufacturing company	Nominal Scala

This study used purposive sampling method, the sampling methods which are based on certain criteria. The criteria used are as follows:

1. The companies are public companies and have compiled the financial statements on a regular basis and a full five-year study period 2007-2011. To meet the calculations in this study, the criteria in the financial statements should include the following data: sales, fixed assets, total assets, net income, earnings before tax, gross profit, depreciation, total debts.
2. The company studied is a non-financial companies listed on the Indonesia Stock Exchange (IDX).

A non-financial company is composed of manufacturing and service companies by definition that Statistics:

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a. The business sector real estate, renting and business services (services include research, development, legal services, accounting services and taxation);
b. Education services sector businesses;
c. The business services sector health and hygiene;
d. Social service sector business activity;
e. The business services sector recreation, culture and sports;
f. The business services sector as well as personal and household retail.

Data Analysis Method

Regression analysis in addition intended to measure the strength of the relationship between two or more variables, also shows the direction the relationship between the dependent variable with the independent variables. Where the regression equation is as follows:

Leverage = a + b_1 firm size + b_2 tangibility assets+ b_3 profitability + b_4 tax rate + b_5 non debt tax shield + b_6 growth rate + b_7 industry sector

DISCUSSION

1. *Firm Size*

The test results show that firm size has no significant effect with leverage. These results support the study by Shah and Khan (2007) that firm size does not significantly (Table 3).

These results contrast with a study by Biger et al. (2008) that firm size has a positive influence to leverage, which means that the larger a company the opportunity to borrow or owe will be more, and vice versa if the size of a small company so that the company needs a little debt. Moreover, large companies prefer to diversify its sources of financing that can help companies avoid defaults (Titman and Wessels, 1988). Therefore, investors are more interested in investing in large companies than small companies, as investors believe that the capital invested in loans will come back.

2. *Tangibility of Assets*

The results showed that assets tangibility has a positive and significant relationship with leverage (Table 3). Companies with high fixed assets will tend to use more debt for the purchase of fixed assets the company needs capital that is not little so the need for additional capital. Therefore, it may affect the use of debt, because if the capital employed is not sufficient then the company will use the loan obtained from external loans and fixed assets as collateral is itself to be pledged. So it can be concluded that the larger the higher the assets collateralized debt usage. These results support the study by Rajan and Zingales (1995) states that tangible assets will be easy dikolateralkan thereby decreasing the risk of the lender, because the assets are worth more at the time of liquidation so that the loss suffered would be less. Therefore, the greater portion of tangible assets on the balance sheet, the greater willingness of lenders to provide loans that leverage will increase. Shah and Khan (2007) also said the same thing where tangibility has a positive influence on debt ratio, the reason for investing in long-term debt creditors will give creditors a fixed rate unless the bankruptcy of the company, and with the securities on fixed assets such as land , buildings, machinery, and so can be considered as a guarantee for creditors to funds invested in long-term debt so that investors do not need to constantly monitor the activities and performance of the company, therefore the creditors will likely give credit to companies that have more fixed assets as collateral the embedded debt.

3. *Profitability*

The preceed is testing the effect of leverage Profitability, thus the result that profitability has a significant and negative (table 3). The results are consistent with the Khan (2010) who found that the profitability leverage has a significant and negative, which means that the higher the profitability of a company, the company will likely use internal funds rather than debt for financing the entire company's operations or to perform new investments. The results also support previous research conducted by Myers and Majlus (1984), and Shah and Khan (2007)

4. *Tax Rate*

From the analysis can be seen that the tax rate has no significant effect on leverage, the manufacturing companies listed on the Indonesia Stock Exchange (table 3 below). This means that the tax rate does not affect the capital structure. It is claimed that the tax rate is not related to the use of debt and not a factor influencing the decision to use the company's debts. These results are not in accordance with previous studies in which the tax rate has a leverage effect. Opinion (Brigham and Houston, 2011) firms with higher tax rates tend to benefit when using debt rather than using equity. Companies that use debt would pay less tax than companies that do not use debt. This is because the companies that use debt can save tax paid. Ultimately, this will increase the value of the company and shareholders prosper. The

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difference was not significant difference was caused by fiscal policy (taxes) between Indonesia and other countries, because the lower tariff smaller corporate tax benefits of debt, because the cost of interest earned can not be used as a tax deduction so taxes are paid to be larger so that not benefit from the use of the interest cost.

5. ***Non Debt Tax Shield***

Based on the results of the tests performed in this study found that non-debt tax shield variable has no significant effect to the debt (table 3). This study supports the study by Shah and Khan (2007) that non-debt tax shield has no significant effect to the debt. These results do not support research conducted by biger et al. (2008) non-debt tax shield has influence with the level of debt. Companies that have a non-debt tax shield in large numbers would tend to use debt in small amounts.

6. ***Growth Rate***

The test results showed that the growth rate has a negative and significant influence with leverage (Table 3). These results support the study by Shah and Khan (2007) that the growth rate has a negative and significant effect of the debt. The company has developed a higher risk of failure of the project as compared to a static business. The manager may not want to add financial risk, operational risk due to new project is already high. Therefore, managers will menggurangi growing use of debt to the company.

7. **Industry Sector**

The test results show that the industrial classification has no impact to the company's capital structure (Table 3). These results are not in accordance with the study conducted by Biger et al. (2008) who explains that the industry classification has influence with debt. Where the company that manufactures machinery and equipment is will have a lower debt than other industry sectors. This is because the product is difficult to be sold quickly. Research conducted by Titman and Wessels (1988) found the effect of the classification of the debt industry. Where the company that manufactures machines and equipment is will use less debt, because it has a high cost of liquidation. The cause was not influential in the industry sector in Indonesia probably caused lenders to provide loans not see the business but rather look at the collateral provided as security.

Table 2
Deskriptif Statistics

Variabel	Minimum	Maximum	Mean	Std.Deviation
Firm Size	24.244	31.754	27.471	1.845
Tangibility of Assets	.028	.921	.357	.204
Profitability	-1.883	.423	.074	.211
Tax Rate	-2.433	5.517	.100	.838
Non Debt Tax Shield	.000	.186	.020	.030
Growth Rate	-.238	1.519	.156	.288
Industry Sector	.000	1.000	.609	.490

Table 3
Multiple Regression

Variable	B	Sig.
(Constant)	-.586	.340
Firm Size	.020	.384
Tangibility of Assets	.581	.002***
Profitability	-.628	.001***
Tax Rate	.042	.319
Non Debt Tax Shield	-.083	.953
Growth Rate	-.252	.043**
Industry Sector	-.084	.384

***) signifikan pada $\alpha = 1\%$
**) signifikan pada $\alpha = 5\%$

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CONCLUSION

1. Conclusion

Based on the analysis of data and discussion presented in the previous chapter on the factors that affect the capital structure of the non-financial companies listed on the Indonesia Stock Exchange during the study period from the year 2007 - 2011 it can be concluded as follows

1. There is a positive and significant correlation between tangibility of assets to leverage.
2. There is a negative and significant correlation between profitability and growth rate with leverage.
3. There was no significant effect between firm size, tax rate, non-debt tax shield and industry classification.

2. Managerial Implication

Based on this research, there are benefits that can be taken as policy implications for management and for investors who want to invest some implications are as follows:

1. For managers must consider the advantages and disadvantages in choosing sources of funding to be able to generate the maximum profit. Things that need to be considered based on the results of this study are tangibility of assets, profitability and growth opportunity.
2. For the creditors who want to give credit to the company should consider factors collateral. Where the creditor will usually choose a company with a high assurance of fixed assets.

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