EFFECT OF THE ASSETS STRUCTURE, GROWTH OPPORTUNITY, AND SYSTEMATIC RISK ON CAPITAL STRUCTURE AND CAPITAL STRUCTURE EFFECT ON COMPANY VALUE

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Abstract
This study aimed to examine the effect of capital structure, growth opportunity, and the systematic risk of the capital structure and the effect of capital structure on firm value. The dependent variable in this study is the value of the company on the capital structure, while independent variables used is the capital structure, growth opportunity, and the systematic risk. Research using secondary data source data originating from the Indonesian Stock Exchange (BEI) and yahoo finance. Sampling using purposive sampling method. So from 55 companies property, real estate, and construction of 37 companies in the sample taken in the period 2010-2014 with a total of 185 observations. The data used in this study is a data panel. Data analysis using Eviews 6.0 program. Data analysis technique used is panel data regression analysis with fixed effect models method (FEM). The results showed that during the study period from 2010 to 2014 in partial capital structure have significant and positive effect on the capital structure, while the growth opportunity and systematic risk and no significant effect on the capital structure. Capital structure have significant and positive effect on firm value.

Keywords: Company Firm, Capital Structure, Growth Opportunity and Systematic Risk.

JEL Classification Code: G32

1. Research Background
A company is established with the goal to be achieved. The company was established to achieve maximum profits, prosper the shareholders or owners of the company and increase the value of the company. Strengthens the knowledge understanding and represents as the mediator in the business to business network as the manifestation of knowledge transfer process (Sundiman and Idrus, 2015). The shareholder's wealth is reflected in the value of the company indicated by the share price of the respective company in the stock market. Thus, the maximization of the shareholder wealth or firm value (share price) has the same true meaning. One that affects firm value is the capital structure set by the company. The
capital structure is a proposition for the use of long-term debt and capital itself presented in the balance sheet on the right side.

Every company always uses capital in its business (Putri, 2012). In establishing the company’s capital structure, corporate finance managers must be cautious. In determining the optimal capital structure, careful planning is required (Margaretha and Ramadan, 2010). Decision and management of capital structure will always be tangent to company value and cost of capital of company (Firnanti, 2011). In accordance with the theory of Brigham and Houston (2006), companies that tend to use more debt have the appropriate assets to be used as collateral for credit. The higher the asset that can be used as collateral to make the higher the structure of assets owned by the company so that the higher the capital structure. Each company has a different growth opportunity, this affects the different methods of decision making expenditures made by financial managers. Companies that tend to use stocks in their operational funding allow for high growth in the future. Therefore, companies with low growth opportunities tend to use more long-term debt. The Company considers choosing the capital structure through the capital market, where there are two risks, namely systematic risk and non systematic risk. According to Hartono (2008), systematic risk can not be eliminated by forming a portfolio, while the non systematic risk can be eliminated by forming a portfolio. So systematic risk can be used as an interrelated situation for companies to structure their capital.

Perception or description of the investor to the company is called company value. High corporate value indicates high shareholder wealth. In MM theory explains that the increase of debt ratio on capital structure will increase the company value as big as tax rate with assumption of target point of capital structure not yet optimal. MM theory estimates the unidirectional relationship between capital structure and firm value with the assumption of optimal capital structure target point has not been reached. If the company achieves optimal capital structure then the company can maximize the prosperity of the owners or shareholders or increase the value of the company and increase the stock price. So the higher the capital structure the higher the value of the company.

The assets structure is a description of the assets owned by the company represented by current assets and fixed assets. If the composition of fixed assets owned by the company is greater than the current assets will make investors lend funds. Because the fixed assets owned by the company can be used as collateral for debt. Having high fixed assets will make the company have high debt levels. So the higher the structure of the company’s assets the higher is also the capital structure of the company.

Growth opportunity influences the development of the company in the future as it relates to the company’s opportunity to use the investment opportunities. In accordance with the theory of debt overhang companies that have a good investment opportunity will use the smallest possible debt after it will execute the investment then the company will use the debt as much as possible to fund the investment. So the higher the growth opportunity the lower the company's capital structure.
In the capital market investors experience two risks ie, systematic risks and unsystematic risk. Systematic risk is proxied through the beta which is a measure of the rate of investor returns with the market index. The higher the beta the greater the rate of return requested by the investor so that it will increase the capital cost of issuing new shares. In addition, dividend payments and emission costs are also the cost of new share issue capital. While the cost of debt only includes interest from the loan alone. So the cost of capital issuance of new shares is greater than the cost of debt capital. This makes companies tend to use debt as an external source of funds. So the higher the systematic risk the higher the capital structure of the company.

![Figure 2](conceptual_framework.png)

**Conceptual Framework Model 2**

Property and Real Estate companies need a lot of money in running their business so that the use of high external funds. Companies in this sector have a lot of assets and suitable to be guaranteed debt, so it will attract investors to invest so that will change the value of the company (Susanti and Suarjaya, 2014). The phenomenon in the introduction above leads researchers to the development of research problems: whether the asset structure, growth opportunity, and systematic risk affect the capital structure and does the capital structure affect the firm's value?

Hypothesis in this research consist of:

H1. The structure of assets has a positive and significant effect
H2. Growth opportunity has a negative and significant effect
H3. Systematic risk has positive and significant effect
H4. Capital structure has positive and significant effect

2. Research Methods

The research design in explanatory research is a study that attempts to explain causal relationship between research variables through a hypothesis testing (Singarimbun and Sofian, 1995). The type of data used is the secondary data contained in the capital market data center that is IDX. In addition to data on financial statements, this study requires data on the price of individual stocks and JCI for the calculation of beta shares obtained from yahoo finance. The data used in this research is panel data. Panel data is a combination of time series and cross-section data. In this study used data with annual time for the 2010-2014 period.

Population in this research is property, real estate and construction sectors which listed in Indonesia Stock Exchange (BEI) in 2010-2014 period. Samples taken in this study using purposive sampling method. As for the criteria used in conducting purposive sampling as follows:

1. Property, real estate, and construction companies listed on the Indonesia Stock Exchange during the study period from 2010 to 2014.
2. Property, real estate, and construction companies that publish their financial reports in IDX for the period 2010-2014 respectively.
3. Property, real estate, and construction companies whose shares are actively traded on the Indonesia Stock Exchange.

In this study, operational variables are defined as follows:

a. Capital structure is measured through Long Term Debt to Equity Ratio. This ratio is a comparison of long-term debt with own capital (Riyanto, 2001).
Capital Structure = Long term debt / Equity ...........................................(1)

b. Company value is measured by *Price to Book Value* (PBV). This ratio is used to compare the stock market value of a company with its book value (Mardiyanti et al., 2012).

\[ PBV = \frac{\text{Stock market value}}{\text{Share book value}} \] ...............................................(2)

c. Asset Structure measured by *Fixed Asset Ratio* (FAR) is the ratio used to compare fixed assets with total assets (Titman and Wessels, 1988).

\[ \text{Structure of assets} = \frac{\text{Fixed assets}}{\text{Total assets}} \] ...............................................(3)

d. *Growth Opportunity* is measured using Tobin's Q. Tobin's Q is used to compare the market value of equity and book value of debt to book value of total assets owned by the company (Chung and Pruitt, 1994).

\[ \text{Tobins Q} = \frac{\text{MVE-E}}{\text{TA}} \] ...............................................(4)

e. Systematic risk is measured by the beta coefficient (\( \beta \)). Beta is a measure of the volatility between the return of a securities and the market return (Khairin, 2014).

\[ R_i = \alpha_i + \beta_i \cdot R_M + \epsilon_i \] ...............................................(5)

To be able to answer research questions and assess the model compiled, analytical techniques to be used in this study is regression analysis using software program Eviews 6.0. The Multicollinearity Test aims to test whether the regression model finds a perfect linear relationship, among some or all of the variables of the regression model. The presence or absence of multicollinearity can be known through the correlation coefficient of each independent variable. If the correlation coefficient between each independent variable is greater than 0.8, then there is multicollinearity (Ajija et al., 2011). Autocorrelation is the relationship between residuals one observation with other observation residuals. To test the presence or absence of autocorrelation Durbin-Watson (DW) is used.

Regression analysis aims to measure the relationship and show the direction of the relationship between dependent variables with independent. Because the data used is panel data, the regression analysis used is panel data regression analysis. Regression analysis of panel data in this study using *fixed effect model* (FEM) method. This approach assumes the conditions of each company are mutually different, so that one firm has coefficients of fixed magnitude for various time periods. To distinguish one company from another company, used pseudo variables (dummy). The regression equation used in this research is multiple linear regression equation for model 1 and simple linear regression equation for model 2 with the formula:

Model 1: \[ Y_{i,t} = \beta_0 + \beta_1 X_{1,i,t} + \beta_2 X_{2,i,t} + \beta_3 X_{3,i,t} + \sum_{n=1}^{40} \beta_n D_{n-1} + \epsilon_{i,t} \]

Information:

- \( Y_{i,t} \) = Capital structure at company \( i \) and year \( t \)
- \( X_{1,i,t} \) = Structure of assets in company \( i \) and year \( t \)
- \( X_{2,i,t} \) = *Growth opportunity* in company \( i \) and year \( t \)
- \( X_{3,i,t} \) = Systematic risk to company \( i \) and year \( t \)
- \( \beta_0, \beta_1, \beta_2, \beta_3, \beta_n \) = intercept
- \( D_n \) = Dummy variable for firm \( n \). The false variable \( D_{1,i} \) (company 1 year \( i \)) = 1 then the dummy variable for the other company equals 0.
- \( \epsilon_{i,t} \) = Company error \( i \) and year \( t \)
Model 2: \[ Y_{i,t} = \beta_0 + \beta_1 X_{1,i,t} + \sum_{n=2}^{18} \beta_n D_{n,t-1} + \epsilon_{i,t} \]

Information:
- \( Y_{i,t} \) = The value of the firm in firm \( i \) and year \( t \)
- \( X_{1,i,t} \) = Capital structure at company \( i \) and year \( t \)
- \( \beta_0, \beta, \beta_n \) = intercept
- \( D_n \) = Dummy variable for firm \( n \). The false variable \( D_{1,t} \) (company 1 year \( i \)) = 1 then the dummy variable for the other company equals 0.
- \( \epsilon_{i,t} \) = Company error \( i \) and year \( t \)

3. Result and Discussion
In this research will be given an explanation of the sample under study based on the mean, maximum, and minimum.

| Variable                | Mean  | Median | Maximum | Minimum |
|-------------------------|-------|--------|---------|---------|
| Firm Value              | 1,752 | 1,431  | 7,243   | 0.218   |
| Capital structure       | 0.324 | 0.237  | 1.368   | 0.008   |
| Structure of assets     | 0.532 | 0.555  | 0.948   | 0.039   |
| Growth opportunity      | 1.318 | 1,157  | 3,959   | 0.284   |
| Systematic risk         | 0.834 | 0.836  | 2,126   | -0.586  |

From the table above, it can be seen that the average value of the company is at number 1.752. This means that the average property, real estate, and construction firms have a stock market price of 1.752 times their share book value. Based on research data there are 77 samples that have firm value above average and there are 108 samples whose company value is below average. The company's highest sample value reached 7,243 and the company's lowest value was 0.218.

The average value of the company's capital structure is 0.324. This indicates that the average property sector, real estate, and construction companies have long-term debt of 0.324 times the capital owned by the company. Based on research data, 71 samples have capital structure above the average value and as many as 114 samples have capital structure below the average value. The highest value of the company's capital structure reached 1.368 and the lowest value of capital structure was at 0.008.

The average value of the company's asset structure is in the figure of 0.532. This indicates that the average company of property, real estate, and construction sector has fixed assets of 0.532 times total assets owned by the company. Based on the research data, 99 samples have assets structure above the average value and as many as 86 samples have assets structure below the average value. The highest value of the company's asset structure reaches 0.948 and the lowest value of the asset structure is at 0.039.

The average value of the company's growth opportunity is at the number 1.318. This indicates that the average of property, real estate, and construction companies has a market value of equity and book value of debt of 1.318 times the total assets owned by the company. Based on the research data 78 samples have a growth opportunity above the average value and as many as 107 samples have a growth opportunity below the average value. The highest growth value of the company reached 3.959 and the lowest growth opportunity was 0.284.

Nilai rata-rata risiko sistematis perusahaan berada di angka 0,834. Hal ini menandakan bahwa rata-rata perusahaan sektor property, real estate, dan konstruksi memiliki beta saham sebesar 0,532. Berdasarkan data penelitian 93 sampel memiliki beta diatas nilai rata-rata dan sebanyak 92 sampel memiliki beta dibawah nilai rata-rata. Nilai tertinggi risiko sistematis perusahaan mencapai 2,126 dan nilai terendah risiko sistematis berada di -0,586.

Multicollinearity test output can be seen in the following table:
Table 2. Multicollinearity Test Results Model 1

| Variable | Test Result (Korelasi < 0.8) | correlation | Decision |
|----------|-----------------------------|-------------|----------|
| SA – GO  | No correlation              | 0.062       | Free Multicollinearity |
| SA – RS  | No correlation              | -0.327      | Free Multicollinearity |
| GO – SA  | No correlation              | 0.062       | Free Multicollinearity |
| GO – RS  | No correlation              | -0.057      | Free Multicollinearity |
| RS - SA  | No correlation              | -0.327      | Free Multicollinearity |
| RS - GO  | No correlation              | -0.057      | Free Multicollinearity |

From the table above, it can be seen that there is no multicollinearity problem in regression equation model 1. This is because the correlation value of all variables is less than 0.8. Multikolinieritaas will not occur in regression model 2. Because model 2 is a simple regression consisting of only one dependent variable and one independent variable.

Decision-making whether or not autocorrelation:

In the regression model 1 obtained Durbin-Watson stat test results of 1.504. This means regression model 1, it can not be decided whether there is autocorrelation or not because the DW test number is between dL and du. Meanwhile, on the regression model 2, the test results DW stat equal to 1.732. Means on regersi 2 model does not happen autocorrelation.

F test output and coefficient of determination can be seen in the following table:

Table 3. F Test Results and Determination Coefficients

|                     | Regression Model 1 | Regression Model 2 |
|---------------------|--------------------|--------------------|
| Probability F-statistik | 0.000              | 0.000              |
| Adjusted R Square   | 0.602              | 0.563              |

The F-statistical probability value for both models is 0.000. Since the probability value of F-statistic <0.05, then both regression models meet the fit model criteria. Regression model is suitable for use in research. In regression model 1, the coefficient of determination (adjusted R2) is 0.602. This states that the variable structure of assets, growth opportunities and systematic risk affect the capital structure by 60.2% and the rest of 39.2% influenced by factors other than the variables studied. In regression model 2, the coefficient of determination is 0.563. This means that the variable of capital structure affect the company value of 56.3% and the remaining 43.7% influenced by other factors outside the research variables.

In this study, hypothesis test will use t test. This study examines the effect of asset structure, growth opportunity and systematic risk in predicting capital structure and testing the effect of capital structure in predicting firm value. Regression results for both models can be seen in table 3 and table 4.

Table 4. The result of Regression Model 1

| Variable             | Coefficient | Standard Error | t-Statistic | Probability |
|----------------------|-------------|----------------|-------------|-------------|
| Constants            | 0.089       | 0.111          | 0.806       | 0.422       |
| Asset Structure      | 0.356       | 0.168          | 2.116       | 0.036       |
| Growth Opportunity   | 0.024       | 0.036          | 0.665       | 0.507       |
| Systematic Risk      | 0.016       | 0.041          | 0.389       | 0.698       |

Tabel 5. The result of Regression Model 2

| Variable              | Coefficient | Standard Error | t-Statistic | Probability |
|-----------------------|-------------|----------------|-------------|-------------|
| Constants             | 1.491       | 0.138          | 10.803      | 0.000       |
| Capital Structure     | 0.806       | 0.382          | 2.111       | 0.037       |
From the results of the regression, the hypothesis testing can be explained as follows:

Hypothesis 1: The structure of assets has a positive effect on capital structure. The value of t-statistic between asset structure and capital structure is 2.116 with probability value equal to 0.036. Thus it can be said that the effect is positive and significant. This result supports the first hypothesis in this study.

Hypothesis 2: Growth opportunity negatively affect the capital structure. The value of t-statistic between growth opportunity and capital structure is 0.665 with a probability value of 0.507. Thus it can be said that the influence is positive and not significant. This result does not support the second hypothesis in this study.

Hypothesis 3: Systematic risk has a positive and significant effect on capital structure. The value of t-statistic between systematic risk and capital structure is 0.389 with probability value equal to 0.698. Thus it can be said that the influence is positive and not significant. This result does not support the third hypothesis in this study.

Hypothesis 4: Capital structure has a positive and significant impact on firm value. The value of t-statistic between capital structure and firm value is 2.111 with probability value equal to 0.806. Thus it can be said that the effect is positive and significant. These results support the fourth hypothesis in this study.

The equation of causality relationship is as follows:

Model 1. Influence of asset structure (X1), growth opportunity (X2) and systematic risk (X3) on capital structure (Y)

\[ Y_{i,t} = 0.089 + 0.356X_{1,i,t} + 0.024X_{2,i,t} + 0.016X_{3,i,t} + \sum_{n=4}^{40} \beta_n D_{n-1} + \epsilon_{i,t} \]

Model 2. The influence of capital structure (X1) on firm value (Y)

\[ Y_{i,t} = 1.491 + 0.806X_{1,i,t} + \sum_{n=2}^{38} \beta_n D_{n-1} + \epsilon_{i,t} \]

Based on hypothesis test that asset structure have an effect on significant to capital structure with magnitude influence to capital structure equal to 0.356. If the asset structure increases by 1%, then on average the capital structure will rise by 0.356%. Brigham and Houston (2006), companies that have assets that are suitable for collateral will more often use debt. Assets suitable for collateral are assets that can be used by various businesses. The result of the above regression which states that the asset structure has a positive and significant effect on the capital structure, so it makes the company first use external fund sources, ie long-term debt as the first alternative to finance the operational and investment activities of the company compared to its own capital.

Hypothesis test states that growth opportunity has positive and insignificant effect on capital structure with the influence of capital structure is 0.024. If the growth opportunity increases by 1%, then the average capital structure will increase by 0.024%. Growth opportunity has a positive and insignificant effect on capital structure, caused by the use of funding sources by property companies, real estate and construction in financing its growth. Most of the companies in this sector will use the profit they receive each year, as can be seen from the increase in corporate profits. In taking a chance in investing the company first use the company's profit before using the debt. Although the company is experiencing high growth, this does not guarantee the lender will lend the funds. There are even companies that have good growth but have low capital structure, and vice versa. So growth opportunities do not affect decisions about the company's capital structure.

Hypothesis test stated that the systematic risk had positive and insignificant effect on the capital structure with the magnitude of influence on the capital structure of 0.016. If the systematic risk increases by 1%, then the capital structure will rise by 0.029%. This is because there is an urge to limit the amount of debt used by companies at a certain level. If the company uses high debt, then the lender will not give more loans to the company. So companies are forced to issue new shares to raise funds even though the
systematic risk of the company is high. This is in accordance with pecking order theory which states that if the company requires external funds, then the company will start from the safest securities, the debt is considered to have the lowest risk, down to more risky debt such as convertible bonds, then to preferred stock and The last through common stock. In addition, the use of debt will make the company to use the debt for the right investment resulting in a large return.

Hypothesis test stated that capital structure have positive and significant effect to firm value with the influence of firm value equal to 0.806. If the capital structure increased by 1%, then on average the value of the company will rise by 0.806%. In the property, real estate and construction sectors, the use of corporate debt has not yet reached the optimum capital structure point, which means that the firm has not balanced the tax savings with the bankruptcy costs incurred by the use of debt. So if these companies increase the use of its debt, it will increase the value of the company that will also show investor confidence to the company. Brigham and Houston (2006) with higher corporate values, this will show the level of shareholder prosperity.

4. Conclusion

There is a positive and significant influence between the structure assets with partial capital structure. This is because more and more fixed assets of companies that can be used as debt guarantees to make companies use the first source of external funds. There is a positive and insignificant influence between growth opportunity and partial capital structure. This is because companies that experience high growth will take a good investment opportunity, so companies will benefit and these profits are reinvested to take other investment opportunities. There is a positive and significant influence between systematic risk and partial capital structure. This is because companies with high beta will have a high risk. In addition, the risk and cost of using debt is less than the risk of issuing new shares. There is a positive and significant influence between capital structure and partial corporate value. This is because the company's debt usage has not reached the optimum capital structure point. As long as the company's capital structure is still below the optimum capital structure point, the tax savings are greater than the cost of bankruptcy.

Investor should invest by considering the problem of systematic risk and assets structure of the company besides the growth opportunity of the company. Investors also need to pay attention to the decision of the company's capital structure. Besides paying attention to the fundamental aspect, it should consider the technical aspect and national and international issues as it influences the capital market (Fatkhurrokhim & Sundiman, 2015). Researchers are well aware that this study is very far from perfect both in terms of factors studied and the amount of data because it is suggested to further researchers to supplement the variables that have not been included in this research model and increase the number of samples and populations so that more research will come perfect.

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