Do Efficiency of Taxes, Profitability and Size of Companies affect Debt? A Study of Companies Listed in the Indonesian Stock Exchange

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Abstract:

The purpose of this research is to examine factors that have an impact on the leverage of a company that is listed in the Indonesian Stock Exchange (Bursa Efek Indonesia) within the period between 2012 and 2015. Another goal of this research is to discover any other factors that have an impact on leverage.

The sampling method used is purposive sampling, a method that chooses samples based on specific criteria and that gives accurate information to the researcher. Using this method, 136 samples were chosen. The analytic method implemented in this research is quantitative and the analytical statistic used is double linear regression analysis. The research result shows that the efficiency of taxes, profitability and growth of assets (with a level of significance as much as 5%) have an impact on leverage.

It indicates that a company tends to use taxes efficiently by maximizing costs, which can be reduced with income by using debts. The profitability variable used in this research supports the pecking order theory; companies tend to use internal funds first and then external funds. Asset growth that is followed by an increase in operation outcome will increase external parties' confidence in the company; due to this confidence, obtaining more debt sbecomes easier, which will make the amount of debts bigger than the company's own capital.

However, the research result shows that variable company size is measured by the value of the assets, and it does not affect a company's leverage.

Keywords: Tax Efficiency, Profitability, Asset Growth, Leverage.

JEL Classification: F38, F43, H21, H71.

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1. Introduction

During a global economic crisis, many companies have large debts and tend to experience liquidity difficulties (Stiglitz and Heymann, 2014). As an archipelagic country (Lemhannas, 2017), Indonesians examined two things that affect a global economic crisis: the monetary policy (which is too loose) and global imbalances (Caballero *et al.,* 2008). Efforts in mobilizing and stimulating economic growth must be implemented by increasing the investment of funds from within and outside the country. To meet funding needs, companies should look for efficient funding alternatives as a component of overall economic efficiency (Kumbhaker and Lovell, 2000). Efficient funding can be carried out if the company has an optimal capital structure. This means that the capital structure can minimize the costs of using the overall capital and has the maximum impact on debt; that reflects the value of the company. The performance of the company can affect investors' perception of the company (Kusumajaya, 2011). An optimal capital structure will optimize the balance between risks and returns on investment, thus maximizing stock prices (Kartika and Dana, 2013).

The phenomenon of corporate financing, which is related to the preference of debt funding (Qian and Yeung, 2015; Rupeika-Apoga and Nedovis, 2016), is an alternative to new stock issuance. This is due to the benefits of loan interest payments, the cost of debt disbursement transactions being cheaper than the cost of new share issuance transactions and management's control being more effective (Brigham and Houston, 2011). Management's decision to vote, considering taxation, generally relates to the efficiency of the tax burden, to be placed on tax planning (Suryanto and Thalassinos, 2017). Koanantachai (2013) considers tax planning to be the utilization of tax law to reducing the burden of tax paid, which is still within the corridor of tax law. This is done to improve tax efficiency, although funding through debt will result in higher interest expenses as well as lower taxable income considers tax planning to be the utilization of tax law to reducing the burden of tax paid, which is still within the corridor of tax law. This is done to improve tax efficiency, although funding through debt will result in higher interest expenses as well as lower taxable income.

To find a company's ability to produce profit, the company's performance is measured by its level of profitability (Aziz, 2016; Thalassinos *et al.,* 2012). One of the purposes of measurement is that investors can see how efficiently companies use assets to generate profits. Choi (2003) explains that profitability is positively related to leverage. Research by Margaretha and Ramadhan (2010) states that profitability affects the capital structure of total leverage and short-term leverage, but profitability does not affect the capital structure model of the long-term leverage model. Companies with low growth opportunities will use more long-term debts.

Since the growth opportunity of each company varies, the decisions made by eachfinance manager will be different;as a result, companies with high growth

opportunities tend to invest with their own capital. Companies with high growth rates will expand by means of external funds in the form of debts. The size of a company has an influence on debts. The size of acompany also significantly affects that company's debt policy (Yulius, 2011).

Based on the background issue, the problems of this study can be formulated into a question as follows: Do tax efficiency, profitability and company size affect the growth of debt? The objective of this study is to examine whether the use of tax efficiency, profitability and company size affect the growth of debt.

2. Theory and Hypotheses

2.1 Theory of the Firm

The theory of the firm aims to maximize the value of the company so that an investor's perception of that companyis associated with higher stock prices (Ernawati, 2016). A higher stock price results in the owners' desire to show theshareholders' prosperity; the shareholders' prosperity and corporate wealth are presented by stock market prices. Stock market prices are a reflection of investment decisions, financing and asset management whose value is shaped through an indicator of the market value of stocks(which are influenced by investment opportunities). Investment opportunities are predicted to provide a positive signal about acompany's future growth, which will increase the stock price and company value. Acompany operates its activities by combining the limitations of the relevant conditions and by considering inputs and outputs with the objective of maximizing the value of the company. This is reflected in the behaviour of individuals in the company, including managers (Jensen and Meckling, 1976). In line with the theory of the firm, companies tend to push as low a tax burden as possible or to make efficient use of the tax burden.

2.2 Modigliani and Miller Theory

The Modigliani and Miller theory (MM-Theory) states that companies using debts get two benefits, namely debts as a source of capital cheaper than equity and interest costs of expenses, so that the tax payable to be smaller. The concept of Weston and Copeland (1997) compares the level of debts (leverage) with the book value of all debts (total debts) with total assets. The higher the ratio, the greater the risks faced by investors. Leverage as a solvency ratio is used to determine the ability of a company to pay corporate liabilities. The debt to equity ratio (DER) is required by shareholders, indicating that most of the investments made by the company should be funded from the shareholders' equity. Referring to Article 18 Paragraph 1 of the Income Tax Law and the Regulation of the Ministry of Finance, it has been determined that a company's ratio of debt to capital should be a maximum of three to one.

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3. Development of Hypotheses

Profitability is defined as the level of net profit earned while running the company's operations within a period. In principle, it reflects the level of effectiveness achieved by a company's operations. A company's high rate of return tends to be a result of relatively small proportions of debt; this is because, with a high rate of return, the need for funds for business development or investment can be obtained from the retained earnings. The profit level is used to assess the company's effectiveness. It is related to the final result of various policies and company decisions that have been executed. According to Machfoedz (2005), the company's size is a scale that can be classified in various ways, including total assets and stock market values. Based on this description, a hypothesis can be formed as follows:

H_1: Tax efficiency affects the level of debts.

Fixed assets are as the ratio of fixed assets to the total assets. The higher the value of a company's fixed assets, the higher the company's debts. This is because large companies will have easier access to funds compared to small companies, and their fixed assets can be used as collateral or collateral debts by the company. As Benkraiem and Gurau (2013) stated, if a company has a high fixed asset percentage of an asset, their leverage can be secured better against the assets. It is also a protection against moral risk problems, which are caused by a possible conflict of interest between creditors and investors. The growth of corporate assets reflects more on long-term sales growth, which is another proxy of growth. Based on this description, another hypothesis can be formed as follows:

H_2: Profitability affects the level of debts.

According to Horne and Wachowicz (2007), the use of leverage can increase the profitability and potential profit of shareholders where the company operates in addition to working capital, fixed assets that have long-term benefits, corporate responsibility on fixed costs, and meeting the needs of funds with its own capital or debts. So, leverage as a ratio calculation, which is used to determine the value of funded assets and ensure the company's debt, needs to be analysed to determine the ability of the company to fulfil its obligations. This is done because the greater the debts owned by a company, the greater the risks will be. In addition, leverage is used as a tool to measure how much dependence a company has on the creditors in financing their assets. The higher the leverage, the higher the risk that the company cannot pay the debt back. Based on this description, another hypothesis can be formed as follows:
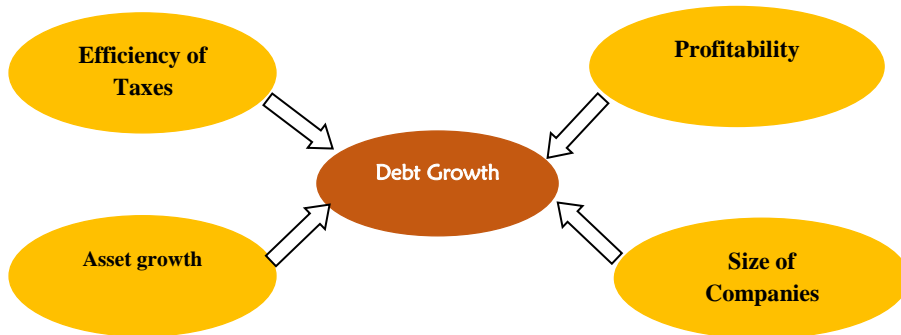
H_3:   The size of a company affects itsdebt level.
H_4:   Asset growth affects the level of debts.

3.1 Theoretical Framework

The theoretical framework, which examines the effect of the efficiency of taxes, profitability and company size on debt growth is represented by the following Figure:

Figure 1: *Theoretical FrameworkResearch*

4. Research Methodology

This study is classified as deductive research, with the aim of testing hypotheses or testing the application of a theory in certain circumstances. From the existing theory, some hypotheses were derived and then tested. To select the samples, we used the purpose sampling method. This study used 34 qualified companies, and a period spanning four years was examined   (34 x 4 = 136). The companies were manufacturing companies listed in the Indonesia Stock Exchange (IDX) between 2012 and 2015. All data were obtained from IDX (www.idx.co.id).

In a normality test, data non parametric statistical tests are used to test the normality of data. If the number of probability ≤ 0.05, then the variable is not normally distributed. Conversely, if the number of probability ≥ 0.05, then the variable is normally distributed (Ghozali, 2016). Hypothesis testing with regression is used to predict the relationship between two variables by making an assumption about a particular function (linear function).

4.1 Analysis

The following Table shows the results of the descriptive statistical output from the data processing using SPSS.

Table 1. *Descriptive Analysis*

	N	Min.	Max.	Mean	Std. Deviation
ETR	136	.0640	1.4568	.2712	.1771
Profitability	136	.0012	.4155	.1177	.1353
Size	136	25.0625	32.9969	28.3571	.0976

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Asset Growth	136	-.1215	.7488	.1710	.1602

In Table 1, the descriptive analysis shows that the variable efficiency tax rate's (ETR) minimum value is 0.0640, its maximum value is 1.4568 and its average value is 0.2712. This indicates that the ETR at the manufacturing company have been able to reach the maximum range. The profitability variable, with an average value of 0.1177, shows that the manufacturing company have been able to reach the maximum range. Similarly, the size and asset growth variables are capable of maximum range. The Normality test is given in Table 2.

Table 2. *Normality Test*
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		136
Normal Parameters[a,b]	Mean	0.0000
	Std. Deviation	0.1635
Most Extreme Differences	Absolute	0.091
	Positive	0.091
	Negative	-0.053
Kolmogorov-Smirnov Z		1.058
Asymp. Sig. (2-tailed)		0.213

The test results of the Kolmogorov-Smirnov test in Table 2 shows a assymp.sig. value of 0.213 or greater than a 0.05 level of significance. So, it can be concluded that the data are normally distributed, assuming that the regression model used fulfils the assumption of normality.

Table 3. *Full Model Regression*

	T	Sig.	Standardize coefficients	Unstandardized		Colinearity Statistics
	Statistic	Statistic	Beta	B	Std.Error	VIF
Constant	0.649	0.518		0.175		
ETR	2.714	0.008	0.228	0.298	0.270	1.083
Profitability	-2.154	0.033	-0.196	-0.355	0.110	1.269
Size	0.573	0.568	0.051	0.006	0.165	1.236
Asset Growth	2.443	0.016	0.203	0.225	0.010	1.066

The equation of the regression equation is given below:

LEV = a + β1 TE + β2 PROFITA + β3 SIZE + β4 GA + e

LEV	= Total short-term and long-term loans divided by total assets
TE	= Tax efficiency
PROFITA	= Profitability
SIZE	= Company size
GA	= Growth asset
e	= Error

The result based on the equation above is:

LEV = 0.175 + 0.298 TE – 0.355 PROFITA + 0.006 SIZE + 0.225 GA + e

The first hypothesis (H_1) states that the efficiency of tax affects the level of debts in which the value of t value of the effective tax rate is 2.714 with a significance value of 0.008 or smaller than 0.05 (0.008 <0.05). Because the value of significance or probability testing is<0.05, H_1 is accepted. The tax rate form manufacturing companies has a positive coefficient on leverage; it shows that, if the income tax rate is high, the company tends to use taxes efficiently. The efficient use of tax rates is accomplished as a company depreciates the value of its fixed assets; this is done so that the company does not need to make any more fiscal corrections. The company aims to intensify its capital against the effect of tax rates to be more efficient.

The second hypothesis (H_2) states that profitability affects the level of debts—in which the value of t arithmetic profitability is -2.154 with a significance value of 0.033 or smaller than 0.05 (0.033 <0.05). Because the value of significance or probability testing is <0.05, H_2 can be accepted. Profitability affects the level of debts (leverage). The profitability of manufacturing companies has a negative coefficient on debt level; if the company has high profits, the company will not use debt as financing. Companies with high profitability tend to use internal funds first and then external funds.

The third hypothesis (H_3) states that the company size affects the debt level—in which the value of t arithmetic of company size is 0.573 with a significance value of 0.568 or greater than 0.05 (0.568> 0.05). Because the value of significance or probability testing is > 0.05, H_3 is rejected. As a result, it can be concluded that the size of a company does not affect the level of debts (leverage).

This study shows that the amount of debt used by companies in Indonesia is not supported by the size of the company. This study shows that the larger the company, the less transparent it is in exposing its performance to external parties.Thus, the size of a company does not guarantee that it will easily obtain a loan because of creditors' trust.

The fourth hypothesis (H_4) states that the asset growth affects the debt level—in which the t value of asset growth is 2.443 with a significance value equal to 0.016 or less than 0.05 (0.016 <0.05). Because the value of significance or probability testing is <0.05, H_4 is accepted. The growth of the company can be shown by the growth of assets owned by the company. The greater the assets expected, the greater the operational results generated by the company. Increased assets followed by increased operating results will increase the confidence of external parties. Thus, it can be concluded that the growth of assets affects the level of debts (leverage).

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5. Conclusion

Tax efficiency affects companies'level of debt. This means that companies tend to use tax efficiently by increasing their maximum costs, which can be deducted from their income. Profitability indicates that the results of this study support the packing-order theory, which suggests that companies tend to use internal funds first and then external funds. While the size of the companies does not affect the level of debts, this is due to relatively large companies acquiring debt that results in reduced cost of debt, which means that the use of debt is a good thing. If it is excessive, however, it will result in the impairment of corporate value. The relatively small size of companies, when acquiring debts, does not significantly affect the value of the company. Furthermore, asset growth affects the level of debts due to the increasing confidence of external parties. The company's effort to increase its debts becomes easier. Thus, the amount of debt becomes greater than the capital itself based on the creditors' confidence in the investing funds, which are secured by the amount of assets owned by the company. However, in this study, there are still limitations, and further research is required. The limitations are related to the sample (which did not include various industries) and the limitations of the factors studied: tax efficiency, profitability, companysize and asset growth.

Acknowledgement:

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