

***Multinationality, Capital Structure, and Cost of Capital of Non-Financial Firm
Listed on Indonesia Stock Exchange***

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ABSTRACT

Multinational firms are firm that do business internationally, the higher degree of multinationality of a firm, they have more ability to get greater funding because there are more chances to get funding from foreign country. Because of that condition, multinational firms have different cost of capital with domestic firms. The main purpose of this study is to understand the impact of degree of multinationality and capital structure, with control variables including firm size, profitability, growth opportunity and income tax rate to cost of capital. Panel data is used on this research and multiple linear regression analysis is used as analytical model. The result suggest that Indonesia multinational firms have lower cost of capital, cost of equity, and cost of debt than Indonesia domestic firms. The study found that capital structure is negatively related to cost of capital, this means that Indonesia multinational firm use more debt than Indonesia domestic firms, and so lower the cost of debt after tax and hence the cost of capital.

PRELIMINARY

Capital structure decisions are related to determining the proportion between long-term debt and equity that will be used to finance the company's investment activities. The proportion of long-term debt and equity of non-financial companies in Indonesia is influenced by internal and external factors. Internal factors are related to company characteristics, while external factors are related to economic conditions in Indonesia.

Most of the non-financial companies in Indonesia have been conducting international trade in the form of exports and imports. Companies that carry out international business are referred to as multinational companies. About 40 percent of non-financial sector companies in Indonesia, which consists of companies in the manufacturing, mining and agricultural industries, get more than 20 percent of their sales from abroad. Aggarwal and Kyaw (2010) classify companies with a foreign sales ratio of more than 20 percent as multinational companies and companies with a foreign sales ratio of less than 20 percent as domestic companies.

The foreign sales ratio reflects the company's degree of multinationality. The bigger the foreign sales ratio, the bigger the international trade the company is doing, thereby increasing the company's degree of multinationality. Companies with a high degree of multinationality

have the advantage of obtaining funding because they have more opportunities to obtain funding sources from other countries. This will cause differences in capital structure between companies with different degrees of multinationality.

Multinational firms are diversifying their business to several countries so that they have more stable cash inflows than domestic firms. Firms that have stable cash flow are more trusted by creditors to get loans and can use more debt financing. This is because the firm is able to fulfill its payment obligations periodically. But on the other hand, debt funding is riskier than equity funding, the use of large debt funding will increase the cost of corporate financial distress, this will increase the return desired by investors. Multinational firms also have a greater risk than domestic firms. The risks faced by multinational firms are exchange rate risk and political risk. In addition, multinational firms also have a larger agency cost than domestic firms (Madura, 2012). Agency Cost will influence the firm's capital structure decisions.

Most researchers have tested the effect of degree of multinationality on three components of the cost of capital, including cost of debt financing, cost of equity financing, and capital structure. There are still few studies examining the effect of degree of multinationality and capital structure on the overall cost of capital. When a company selects a project or when financial professionals evaluate a company, the benchmark used for the return on investment is the overall cost of capital, not the cost of debt or the cost of equity. The cost of capital is also used to assess the company's financial performance. For example, measuring financial performance uses Economic Value Added (EVA). The calculation compares the cost of capital with the return on invested capital.

Several studies about multinationality and capital structure show inconsistent results. Reeb et al. (2001) and Singh and Nejadmalayeri (2004) agree that multinational firms have a higher debt utilization than domestic firm. These study conclude that multinational firms have lower cost of capital than domestic firms. Singh and Nejadmalayeri (2004) also examines the effect of control variables such as firm size, managerial agency cost, and asset structure. The results of this study indicate that a high level of international diversification results in a lower overall cost of capital.

Wang et al. (2020) and Aggarwal & Kyaw (2010) have a different result. Their study showed that multinational firms in America have a higher cost of capital than domestic firm. These study also conclude that multinational firms use more equity than debt financing. In addition, Wang et al. (2020) suggest that there is a positive effect of degree of internationalization and growth opportunity on the cost of capital, while leverage, profitability, firm size, and income tax rate have a negative effect on the cost of capital. Besides that, Aggarwal & Kyaw (2010) suggest that there is a negative effect on the level of multinationality, dividend payout ratio, profitability, and growth opportunity on capital structure, while collateral value of assets and firm size have a positive effect on capital structure.

Based on the background of the problems described, the researcher wants to examine the effect of firm degree of multinationality and capital structure with some control variables such as income tax rate, growth opportunity, firm size, and profitability on cost of capital of non-financial firms listed on Indonesia Stock Exchange (IDX) in the period 2014-2019. In addition, this research is expected to provide benefits for academics in the form of knowledge about the effect of multinationality on the cost of capital and for corporate financial managers, this research is expected to provide important information and input in understanding the impact of international operation and capital structure decision on cost of capital.

THEORETICAL BASIS

Cost of Capital (COC)

The definition of COC is the minimum level of return required by the owner of capital or is the cost of funds obtained by the firm when viewed from the perspective of the firm that received the funds (Sudana, 2011). Capital structure decisions relating to long term sources of funds determine the amount of capital cost borne by the company. COC is an important thing to consider when a firm is making long-term investment decisions or when evaluating the firm. In general, the cost of capital is divided into two types, namely the cost of capital from each source of funds (component of the COC) and the weighted average cost of capital (WACC).

Cost of Equity (COE)

Cost of equity is the minimum level of income that a firm must earn on its investment in common stock. In accordance with (Stewart, 1991), capital asset pricing model (CAPM) was used to measure the cost of equity.

Cost of Debt (COD)

Debt can be obtained by issuing bonds or borrowing from certain financial institutions. The cost of debt from the issuance of bonds can be in the form of the level of profit required by the lender for the investment purchased with bonds, while the cost of debt originating from loans from financial institutions is interest payments. The firm must bear the cost of debt because it uses debt to finance its investment.

Degree of Multinationality (DM)

Multinational firms are firms that are involved in various forms of international business. International trade is a way of doing international business that has minimal risk because it does not endanger firm capital. Multinational firms are diversifying their business to several countries so that they have more stable cash inflows than domestic firms. Firms that have stable cash flow are more trusted by creditors to get loans and can use more debt financing. This is because the firm is able to fulfill its payment obligations periodically. In addition, multinational firms, which often borrow large amounts of funds, will receive preferential treatment from creditors, thereby reducing the firm's cost of debt and so the cost of capital. Fatemi (1984) states that companies that diversify internationally have a lower systematic risk, so they have a lower cost of equity relative to domestic companies. Therefore, the effect of degree of internationalization on the overall cost of capital is negative.

H₁: DM has negative effect on COC

H₂: DM has negative effect on COE

H₃: DM has negative effect on COD

Capital Structure (CS)

Capital structure is part of the company's financial structure, because it only deals with long-term funding. The source of funds used in the capital structure basically consists of long-term debt and equity. Capital structure on this study is measured using a debt ratio which is used to measure how much debt is used in corporate funding. Long-term debt earned by companies has a relatively low cost of capital because the risks faced by fund owners are lower. This is because income from debt is fixed and has a definite maturity, while equity is a long-term source of funds whereas income from own capital is not fixed and does not have a specified

maturity date. In addition, paying interest for debt financing is a tax reduction, the greater the use of debt is expected to generate tax shield benefits for the company. However, the use of large debt will create a risk of financial distress for the company, thereby increasing the cost of equity for shareholders. If the benefits of debt exceed the costs of bankruptcy, the overall cost of capital will be lower along with the increased use of debt (Wang et al., 2020).

H₄: CS has negative effect on COC

H₅: CS has positive effect on COE

H₆: CS has negative effect on COD

Profitability (ROA)

Profitability shows the firm's ability to use the firm's resources, such as sales, capital or firm assets to generate profits. Ross et al. (2008) stated that the profitability ratio is used to measure the level of efficiency of a firm in using assets and managing its operations.

According to Wang et al. (2020), the greater the profitability of a company, the greater the company's ability to generate cash flow from its operations, so the lower the risk faced by investors. Therefore, the greater the profitability of a company, the lower the overall cost of capital of the company.

Firm Size (LnTA)

The size of the firm reflects the amount of wealth owned by the firm. The size of a firm can be measured from the total assets owned by the firm. Companies with large sizes have a better ability to face risks and develop company operations. Large companies tend to diversify their business more than smaller companies, so that the chances of failing to run their business or going bankrupt are less likely. This will reduce the risk borne by creditors and investors, so that the cost of capital of large companies will be lower than small companies.

Growth Opportunity (MTB)

Growth opportunity is a firm growth opportunity that can increase firm value in the future. In this study growth opportunity proxied by market to book (MTB) ratio. This ratio measures the financial market assessment of the company management and organization as a going concern. Companies that have high growth opportunities have more opportunities to develop the company by investing in profitable projects in the future. This will cause underinvestment problems to arise in the presence of agency conflicts between shareholders and creditors. The creditor allows to increase the required rate of return to adjust the costs associated with asset substitution issues. In addition, investors will also increase the expected return or the company's cost of equity due to the greater risk if the company invests in risky projects.

The greater the opportunity for company growth, the greater the risk the company has, so that the growth opportunity has a positive effect on the company's cost of capital (Wang et al., 2020).

Income Tax Rate

Corporate income tax is a tax imposed on a firm on income received or earned in a tax year based on the applicable taxation regulations in order to meet the interests of the state. Wang et

al. (2020) stated that the higher the income tax rate, the lower the cost of debt after tax due to the tax savings effect of debt financing. Therefore, the cost of capital will also be lower overall. Thus the income tax rate has a negative effect on the cost of capital of a company.

Model Analysis

The analysis model used in this study is a multiple regression analysis model:

$$COC_{i,t} = \alpha_0 + \alpha_1 DM_{1i,t-1} + \alpha_2 CS_{i,t-1} + \alpha_3 ROA_{i,t-1} + \alpha_4 LnTA_{i,t-1} + \alpha_5 MTB_{i,t-1} + \alpha_6 TaxRate_{i,t-1} + \varepsilon_{i,t} \quad (1)$$

$$COE_{i,t} = \alpha_0 + \alpha_1 DM_{1i,t-1} + \alpha_2 CS_{i,t-1} + \alpha_3 LnTA_{i,t-1} + \alpha_4 MTB_{i,t-1} + \varepsilon_{i,t} \quad (2)$$

$$COD_{i,t} = \alpha_0 + \alpha_1 DM_{1i,t-1} + \alpha_2 CS_{i,t-1} + \alpha_3 LnTA_{i,t-1} + \alpha_4 ROA_{i,t-1} + \varepsilon_{i,t} \quad (3)$$

Explanation:

$COC_{i,t}$	= cost of capital for firm i in year t
$COE_{i,t}$	= cost of capital for firm i in year t
$COD_{i,t}$	= cost of capital for firm i in year t
$DM_{1i,(t-1)}$	= dummy variable degree of multinationality for firm i in year t-1
$CS_{i,(t-1)}$	= capital structure for firm i in year t-1
$ROA_{i,(t-1)}$	= return on asset for firm i in year t-1
$LnTAs_{i,(t-1)}$	= natural logarithm of the total asset for firm i in year t-1
$MTB_{i,(t-1)}$	= market to book ratio for firm i in year t-1
$TaxRate_{i,(t-1)}$	= income tax rate for firm i in year t-1
α_0	= constant
$\alpha_{(1,2,3,4,5,6)}$	= regression coefficient
$\varepsilon_{i,t}$	= error for firm i in year t

Hypothesis

Based on the results of theoretical descriptions and previous research, the hypotheses in this study are:

H₁ : DM has negative effect on COC

H₂ : DM has negative effect on COE

H₃ : DM has negative effect on COD

H₄ : CS has negative effect on COC

H₅ : CS has positive effect on COE

H₆ : CS has negative effect on COD

RESEARCH METHODS

Variables

Dependent Variable

Cost of Capital

COC in this research measure as the weighted average of the cost of equity and cost of debt. The following is the calculation formula for COC:

$$\text{Cost of Capital}_{i,t} = \text{Cost of Equity}_{i,t} \times \frac{\text{Equity}}{\text{Capital}_{i,t}} + \text{Cost of Debt After Tax}_{i,t} \times \frac{\text{Debt}}{\text{Capital}_{i,t}} \quad (4)$$

COE is the rate of return on common stock desired by investors. In this study, cost of equity is measured using the CAPM approach. In this study, R_f (risk free rate) uses the BI 7-day repo rate average data. Meanwhile, R_m (market return) uses the JCI data or the Composite Stock Price Index. The calculation formula is as follows:

$$\text{Cost of Equity}_{i,t} = R_f + \beta (R_m - R_f) \quad (5)$$

COD measured as after tax yield to maturity. Firms that use debt financing will be liable to pay interest. Interest is a form of expense for the firm (interest expense). Interest payments can reduce tax payments that must be borne by the firm. The calculation formula is as follows:

$$\text{Cost of Debt}_{i,t} = \text{Yield to Maturity}_{i,t} \times (1 - \text{Marginal Tax Rate})_{i,t} \quad (6)$$

Independent Variable

Degree of Multinationality

According to Aggarwal and Kyaw (2010) degree of multinationality of a firm is measured using the foreign sales ratio as a dummy variable, which is equal to 1 if a firm is included in the multinational firm category (foreign sales ratio $\geq 20\%$) or has a value of 0 if the firm is included in the category of domestic firms (foreign sales ratio $< 20\%$). Degree of multinatonality is measured using the formula:

$$\text{Foreign Sales}_{it-1} = \frac{\text{Foreign Sales}_{it-1}}{\text{Total Sales}_{it-1}} \quad (7)$$

Capital Structure

The Capital Structure is proxied by debt ratio. The calculation formula is as follows:

$$\text{Capital Structure}_{i,t-1} = \frac{\text{firm book value of long term debt}_{i,t-1}}{\text{firm book value of long term debt}_{i,t-1} + \text{market value of firm equity}_{i,t-1}} \quad (8)$$

Control Variable

Firm Profitability

Firm profitability is proxied by return on assets (ROA). Profitability is the firm's ability to generate profits during a certain period. The calculation formula is as follows:

$$\text{Return on assets}_{i,t-1} = \frac{\text{Total Net Income}_{i,t-1}}{\text{Total Assets}_{i,t-1}} \quad (9)$$

Firm Size

The size of a firm can be measured from the total assets owned by the firm. Firm size is measured through the natural log of the total assets of a firm, with the formula:

$$\text{Firm size}_{i,t-1} = \text{LnTotalAsset}_{i,t-1} \quad (10)$$

Growth Opportunity

Growth opportunity is a firm growth opportunity that is proxied by market value to book value (MTB). The calculation formula is as follows:

$$\text{Market to book ratio}_{i,t-1} = \frac{\text{Market price}_{i,t-1} \times \text{Outstanding share}_{i,t-1}}{\text{Book value of equity}_{i,t-1}} \quad (11)$$

Income Tax Rate

Income tax rate is the firm's income tax rate in a certain year, which is measured using the formula:

$$\text{Income tax rate}_{i,t-1} = \frac{\text{Income tax}_{i,t-1}}{\text{Income before tax}_{i,t-1}} \quad (12)$$

Population and Sample

The population used in this study are firms in the agricultural, manufacturing and mining sectors listed on Indonesia Stock Exchange in 2014–2019. The population in this study was 159 firms. The final sample was 118 firms and consist of 590 firm year observations, of which 249 were multinational firms and 341 were domestic firms. Purposive sampling method was used to determining the sample in this study, which is the sampling technique with certain considerations or limitations, including:

1. Firms listed in the non-financial industry group for the period 2014-2019.
2. Firms that have annual reports and have data on foreign sales and the completeness of components in calculating the dependent variable, independent variable and control variable.
3. The firms studied were firms that published financial statements ended on December 31, 2014-2019.

Data Collection Procedure

The data collection procedure used for this study used five steps, namely:

1. Determine the necessary data in accordance with the measurement needs of the dependent variable, independent variable and control variable in this study
2. Looking for secondary data from official publication data including IDX (<http://www.idx.co.id/>), Yahoo Finance (<http://www.finance.yahoo.com/>) and the Wall Street Journal (<http://www.wsj.com/>)
3. Processing required raw data according to analysis needs
4. Tabulation of data adapted to the format of the data analysis tool in Microsoft Excel 2016
5. Processing data with Eviews (Econometric Views) 10 for statistical analysis

Data Processing Methods

The main purpose of this study is to understand the impact of independent and control variables to dependent variables using multiple regression analysis. The dependent variable in this study is cost of capital, cost of equity, and cost of debt. The independent variables are the degree of multinationality and capital structure, and the control variable consists of profitability, firm size, growth opportunity, and income tax rate.

In this study, a descriptive analysis was conducted to determine the value of all variables without comparing or linking one variable to another. Furthermore, to determine the best processing method (pooled least square / common effect, fixed effect, or random effect model), the Chow and Haussman test were performed. After that, the classical assumption is tested to identify the symptoms of deviating classical assumptions in the regression analysis.

Furthermore, multiple linear regression analysis was performed. The level of significance chosen in this study is 0.05 (5%). It means that the result of the conclusion has a probability of 95% or an error tolerance of 5%. To test whether a hypothesis is accepted or rejected, the F test and t test are performed. The F test is used to test the relationship of the independent and control variable to the dependent variable simultaneously. While the t test is a statistical test used to test the relationship between the independent and control variable to the dependent variable partially.

RESULTS AND DISCUSSION

Description of Research Results

Descriptive analysis shows descriptive variables related to the variables used, including the cost of capital, capital structure, return on assets, total assets natural logarithm, ratio of firm's market-to-book, and firm income tax rate. Table 1.1 shows a descriptive analysis of variables in multinational and domestic firms.

Table 1. Variable Statistical Description

Variables	Domestic Firm				Multinational Firm			
	Mean	Std Dev	Min	Max	Mean	Std Dev	Min	Max
<i>Tax Rate</i>	0.2684	0.2650	-2.2574	1.8614	0.3436	0.5653	-1.9497	5.7953
<i>MTB</i>	2.2149	4.2282	-1.2204	45.5606	1.1907	1.8906	-7.7739	15.6969
<i>LNTotalAssets</i>	14.8677	1.5397	11.4001	18.3855	15.0119	1.4968	11.5085	18.6505
<i>ROA</i>	0.0669	0.0966	-0.4330	0.5202	0.0414	0.0767	-0.2714	0.3887
<i>Capital structure</i>	0.1376	0.2147	0.0000	0.9499	0.2721	0.3002	0.0000	0.9683
<i>COC</i>	0.0737	0.0390	-0.2065	0.2755	0.0606	0.0349	-0.0970	0.2472
<i>Observed Firm</i>	341				249			

Source: processed data

Statistical description illustrated that the average cost of capital of multinational firms is 6.06%, while the average COC of domestic firms is 7.37%. This shows that multinational firms have a lower COC than domestic firms. Multinational firms use debt financing more than domestic firms, the average capital structure value of multinational firms is 27.21%, while the

average capital structure value for domestic firms is 13.76%. The size of multinational firms is bigger than domestic firms, it can be seen that the average value of natural logarithm of total assets in multinational firms is 15.0119 while the average value of natural logarithm of total assets in domestic firms is 14.8677. Domestic firms have a greater return on assets than multinational firms. This can be seen from the average value of return on assets of 4.14% in multinational firms while the average value of return on assets in domestic firms is 6.69%. The average value of the MTB ratio of domestic firms is greater, indicating greater growth opportunities than multinational firms. The tax rate of multinational firms is greater, namely 34.36% compared to domestic firms, which is 26.84%. The number of observations in this study amounted to 590 observations, of which 249 were multinational firms and 341 were domestic firms.

The processing method used in equations (1) and (2) is a common effect because the results of the chow test probability > 0.05 are 0.1038 in model (1) and 0.9907 in model (2). The data processing method used in the equation model (3) is random effect because the results of the chow test probability < 0.05 are 0.00 and the results of the Hausman test probability > 0.05 are 0.44.

Model Analysis and Hypothesis Testing

The results of model analysis and hypothesis testing are briefly presented in table 2 below.

Table 2. COC Regressions

Variables	Hypothesis	t	sig	Remarks
Degree of Multinationality	H1	-2.682	0.008	Accepted
Capital Structure	H4	-3.241	0.001	Accepted
Profitability		-2.201	0.028	Accepted
Firm Size		0.389	0.697	Rejected
Growth Opportunity		2.157	0.031	Accepted
Income Tax Rate		-11.54	0.000	Accepted

Source: processed data

Table 3. COE Regressions

Variables	Hypothesis	t	sig	Remarks
Degree of Multinationality	H2	-2.343	0.019	Accepted
Capital Structure	H5	-0.190	0.850	Rejected
Firm Size		1.166	0.244	Rejected
Growth Opportunity		0.331	0.741	Rejected

Source: processed data

Table 4. COD Regressions

Variables	Hypothesis	t	sig	Remarks
Degree of Multinationality	H3	-4.813	0.000	Accepted
Capital Structure	H6	0.211	0.833	Rejected
Profitability		0.694	0.488	Rejected
Firm Size		-0.163	0.871	Rejected

Source: processed data

Table 2. shows that independent variable degree of multinationality and capital structure have a significant negative effect on the cost of capital. H1 and H4 were accepted with significancy $< 0,05$. Then firm's income tax rate and profitability proven to have negative effect on COC. Growth opportunity is positively related to cost of capital. Only firm size was rejected with significancy $> 0,05$. The result shows that firm size does not influence the cost of capital.

Table 3. shows that degree of multinationality is negatively related to cost of equity. Capital structure and some control variables including firm size and growth opportunity does not influence the cost of equity. Table 4 shows that there is a significant negative effect of degree multinationality on cost of debt. Capital structure and control variable such as profitability and firm size does not have significant effect on cost of debt. This result shows that there is no variable that has a greater influence than the effect of degree of multinationality on the cost of equity and cost of debt.

Discussion

Degree of Multinationality and Cost of Capital

Based on the analysis that has been done, it shows that degree of multinationality is negatively related to COC as weighted average and as component (cost of equity and cost of debt). This proves that multinational firms listed on IDX have a lower COC than domestic firms. The higher the degree of multinationality, the lower COC. The results of this analysis are in accordance with Reeb et al. (2001) which shows that degree of multinationality has a significant negative effect on the cost of debt. This study is also in accordance with the results of (Singh & Nejadmalayeri, 2004) study which states that a high level of international diversification results in a lower overall cost of capital. This study shows different results from Wang et al. (2020) which shows that degree of multinationality has a significant positive effect on the cost of capital, this is because this study uses firm data in America. Based on the results of the analysis conducted, Wang et al. (2020) found that firms in America use equity funding more than debt financing.

In accordance with the stated hypothesis, firms with a higher level of multinationality or with a foreign sales ratio of more than 20% have more stable cash inflows due to business diversification into several countries. Multinational firms also benefit from risk reduction due to international diversification (Levy and Sarnat, 1970; Lessard, 1973). Agmon and Lessard (1977) proved that multinational firms have better stability in facing market volatility. Investors consider a reduction in earnings variability as the firm's financial strength, thereby reducing the cost of capital. In addition, a firm with a stable cash flow can meet its principal and interest payment obligations periodically. The firm is more trusted by creditors to get loans and can use more debt funding. Multinational firms, which often borrow large amounts of funds, will receive

preferential treatment from creditors, thereby reducing the firm's cost of debt. Firms that use debt financing will also benefit from tax savings and can reduce the cost of debt after tax.

In addition, according to Caves (1971) multinational firms are more capable to overcome capital flow constraints due to market imperfections because their ability to internalize capital market transactions. Multinational firms have the opportunity to avoid expensive external market transactions, this can help firms reduce COC. Fatemi (1984) states that firms that diversify internationally have a lower systematic risk and affect to lower cost of equity than domestic firms. Therefore, it is proven that the effect of degree of multinationality on the overall COC is negative.

Capital Structure and Cost of Capital

Capital Structure as measured using a debt ratio has a significant negative effect on the COC. Multinational firms that have stable cash flows can meet their principal and interest payments on a periodic basis. This will cause the firm to be more trusted by creditors to get loans and be able to use more debt financing. Long-term debt earned by firms has a relatively low cost of capital because the risk faced by creditors is lower than that of shareholders. This is because income from debt is fixed and has a fixed maturity date, while income from own capital is not fixed and does not have a specified maturity period. Multinational firms, which often borrow large amounts of funds, will receive preferential treatment from creditors, thereby reducing the firm's cost of debt. In addition, paying interest for debt financing is a tax reduction, the greater the use of debt is expected to generate tax shield benefits for the firm. However, in addition, the use of large debt will create financial distress risks for the firm, thereby increasing the cost of equity for shareholders. When the benefits of debt exceed the cost of bankruptcy, the overall cost of capital will be lower along with the increased use of debt (Wang et al., 2020).

The results of this study are in accordance with Reeb et al. (2001) and Singh and Nejadmalayeri (2004) which state that firms with a higher level of multinationality have a higher level of debt utilization. The higher the level of multinationality, the greater the debt financing used by the firm. This directly affect in a decrease on the overall COC, even though the risk of equity is getting higher.

Control Variables and Cost of Capital

Profitability, which is measured using the return on asset ratio, has a significant negative effect on COC. The greater the level of profitability of a firm, the lower the cost of capital borne by the company. This is because the greater the profitability of a corporation, the greater the corporation's ability to generate cash flow from its operations, so the lower the risk faced by investors. The results of this study are consistent with research conducted by Wang et al. (2020) which states that profitability is negatively related to COC.

The results of this study indicate that there is no significant effect of a firm's firm size on the cost of capital. This proves that the size of a firm does not affect COC to be borne by the firm. Firms with a large size do not guarantee a better ability to face the risks borne by creditors and investors than small firms, and vice versa.

Among other control variables, growth opportunity is positively related to cost of capital. This explains that the greater the opportunity for firm growth, the greater the cost of capital borne by the firm. Firms that have high growth opportunities have more opportunities to develop the firm by investing in profitable projects in the future. This will cause underinvestment problems to arise in the presence of agency conflicts between shareholders and creditors. Firms

will choose to invest in risky projects to get a large rate of return. Shareholders will benefit if the project implementation is successful, while creditors will receive losses if the project fails and does not benefit if the project implementation is successful. Therefore, the creditor and investors will also increase the expected return or the firm's cost of capital due to the greater risk if the firm invests in risky projects. The results of this study are in accordance with Hann et al. (2013) and Wang et al. (2020) which states that the greater the opportunity for firm growth, the greater the risk the firm has, so that the growth opportunity has a positive effect on the firm's cost of capital.

Based on the regression results, income tax rate proven to have negative effect on COC. This shows that the higher the income tax rate, the lower the cost of capital will be due to the impact of tax savings from debt financing. This study is in accordance with the research of Wang et al. (2020) which states that the income tax rate has a negative effect on the cost of capital.

CLOSING

Conclusion

Based on the results of data analysis which refers to the research objectives, hypotheses, and analysis models, the following conclusions can be drawn:

1. Degree of multinationality is negatively related to COC, COE, and COD. This shows that Indonesia multinational firms have lower capital costs than Indonesia domestic firms.
2. Capital Structure and income tax rate have a significant negative impact on COC. This shows that the higher the level of debt of a firm, the COC of the firm will decrease. In addition, the higher the tax rate of a firm, the COC of a firm will also decrease due to the benefits of tax savings to reduce the cost of debt after tax.
3. Profitability has a significant negative effect on COC. These results prove that the higher the profitability of a firm, the lower the COC will be.
4. Growth opportunity is positively related to COC. This means that the higher the firm growth opportunity, the higher the COC that the firm will bear.

Suggestion

Based on the research results and the conclusions taken, the suggestions that can be put forward are:

1. Firms should pay attention to the level of multinationality in controlling the COC because the level of multinationality has a significant effect on both the WACC and the COC of each source of funds (equity and debt).
2. Management should pay attention to capital structure, profitability, growth opportunity and income tax rate in controlling the WACC. This is because these four variables have a significant effect in reducing the value of the WACC. In addition, management should pay attention to the choice of capital structure that is used as a consideration in controlling the COC.
3. For further researchers, it is advisable to add other variables that can affect the WACC capital and the COC of each source of funds.

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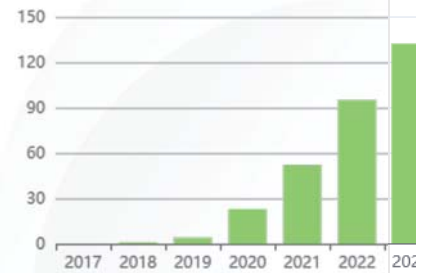
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