# THE INFLUENCE OF CAPITAL INTENSITY, FIRM SIZE, AND LEVERAGE ON TAX AVOIDANCE ON COMPANIES REGISTERED IN JAKARTA ISLAMIC INDEX (JII) PERIOD 2015-2019

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| *Abstract:* | *This research aims to find out the influence of capital intensity, firm size, and leverage on tax avoidance. This research is focused on companies listed in Jakarta Islamic Index (JII) period 2015-2019. The sample determination techniques used in this study are purposive sampling techniques and for data analysis using multiple linear analysis techniques. The results of the analysis show that capital intensity has a positive effect on tax avoidance, leverage negatively affects tax avoidance, and the size of the company has no effect on tax avoidance.* |
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| *Keywords:* | *tax avoidance; capital intensity; firm size; leverage* |

## 1. Introduction

Taxes are one of the obligations of society to the state and as a form of community participation in the development of the homeland and the state. The definition of tax according to Rochmat Soemitro (Mardiasmo, 2011:1) is people's dues to state coffers under the law (which can be imposed) with no direct lead (counterpresentation) services and which are used to pay for public expenditures. Taxes are an important source of funding for a country's economy because the most potential source of state revenue and the highest percentage in the State Budget is taxes. In early 1984, the government changed the tax system in Indonesia which was originally an official assessment system changed to a self assessment system. The Official assessment system is a tax voting system that gives full responsibility in tax voting to the government, while the self assessment system is a tax voting system that gives taxpayers authority in determining the amount of tax owed eachs in accordance with the prevailing tax laws and regulations. (Siti Resmi, 2014:11). With the self assessment system implemented, taxpayers are required to calculate, take into account, deposit, and report their own taxes, this creates an opportunity for taxpayers to tax avoidance because it can give companies the opportunity to calculate taxable income as low as possible, so that the tax burden on the company becomes lower (Ardyansyah and Zulaikha, 2014).

Tax avoidance is an attempt to ease the tax burden by not breaking the law (Mardiasmo, 2011:8). Tax avoidance is usually done by corporate taxpayers because the company wants to try to minimize its tax burden in order to improve profitability and cash flow. According to Hanlon and heitzman (2010), the tax avoidance ratio can be calculated using proxies including: Accounting Effective Tax Rate (GAAP ETR), Current Effective Tax Rate (Current ETR), and Cash Effective Tax Rate (CETR). Although tax avoidance is legal, the government still does not want that because it will reduce state revenues. The phenomenon of tax avoidance in Indonesia can be seen from the tax ratio of Indonesia. The tax ratio demonstrates the government's ability to collect tax revenues or reabsore gross domestic product (GDP) from the public in the form of taxes. The higher a country's tax rate, the better the country's tax rate performance. The Directorate General of Taxation (DJP) revealed indonesia's tax to gross domestic

product (PBD) ratio of 10.7 percent in 2019. That figure is down from 11.5 percent in 2018 (CNNIndonesia.com, 2020).

Capital intensity is the ratio of investment activities owned by the company in the form of fixed assets. Capital intensity represents how much of the company's fixed assets are out of its total assets. Capital intensity can generally be calculated using a proxy of total fixed assets divided by the total assets held by the company (Lanis and Richardson, 2011 in Husnaini et al, 2013). According to Rodriguez and Arias (2012) in Ardyansah and Zulaikha (2014) said that the company's fixed assets allow the company to reduce its taxes as a result of depreciation of fixed assets each year. Almost all fixed assets will experience depreciation which will be the cost of depreciation in the company's financial statements. While these depreciation costs are costs that can be deducted from income in the calculation of corporate tax. The greater the depreciation fee will be the smaller the tax rate the company has to pay.

Machfoedz (1994) in Suwito and Herawati (2005) states that the size of the company is a scale that classifies the company into large and small companies according to various means such as total assets or total assets of the company, stock market value, average sales rate, and number of sales. The maturity stage of the company is determined based on the total assets, the greater the total assets indicating that the company has good prospects over a relatively long period of time. This illustrates that the company is more stable and more able to make a profit than a company with a small total asset. Therefore, some previous researchers used total assets in measuring the size of the company. According to Munawir (2010:30) the company size formula is the natural logarithm of total assets. Watts and Zimmerman (1986) in Achmad et al. (2007) stated that managers of large companies tend to select accounting methods that suspend reported earnings from the current period into future periods in order to reduce reported profits.

Leverage is a ratio that indicates the amount of debt a company has to finance its fixed assets. The increase in the amount of debt will result in the appearance of interest expense to be paid by the company. The interest expense component will reduce the company's pre-taxable profit, so the tax burden that the company has to pay will be reduced (Adelina, 2012). According to Hery (2015:190), solvency or leverage ratios are ratios used to measure the extent to which a company's assets are financed with debt. In other words, the solvency ratio is the ratio used to measure how much debt load the company must bear in order to fulfill assets. To calculate solvency or leverage ratio, the most commonly used proxies are Debt to Total Asset Ratio (DAR) and Debt to Equity Ratio (DER).

## 2. Research Method

The approach used in this study is an associative quantitative approach because this study aims to find out the causal relationship between two or more variables (Sugiyono 2013:55). This research explains the influence of capital intensity, firm size, and leverage on tax avoidance.

The data used in this study is secondary data from companies registered in Jakarta Islamic Index (JII) by accessing the official website of IDX namely www.idx.co.id and additional website namely www.idnfinancials.com. The population in this study is all companies whose shares are listed in jakarta islamic index (JII) with a period of 2015-2019 which amounts to 30 companies. While the withdrawal of samples of this study was carried out using purposive sampling techniques, namely samples selected with certain considerations or certain criteria (Sugiyono, 2013:122). The purpose of using purposive sampling is to obtain a representative sample according to the specified criteria. The sample selection criteria in this study are as follows:

a. Companies listed in sharia stocks listed in JII period 2015-2019.
b. The Company has complete data required in this study, including the company's financial statements ended December 31 and consistently registered with JII during the observation year.
c. Companies that issue financial statements in rupiah.
d. Companies that do not have a negative commercial profit value so as not to cause distortions in research.

Based on the criteria set, a sample of 11 companies were selected that met the criteria and there were 19 companies that did not meet the sample selection criteria.

Dependent variables are variables that are affected or as a result, due to the free variable (Sugiyono, 2013). The bound variable in this study is tax avoidance proxies using current ETR (Effective Tax Rate). ETR represents the percentage of the total income tax expense paid by the company of all total pre-tax income earned by the company (Yoehana, 2013). The current calculation formula of ETR according to Siti Normala (2013) is as follows:

$$Current\ \text{ETR} = \frac{Current\ tax}{Income\ Before\ Tax}$$

An independent variable is a variable that affects or causes changes or the onset of bound variables. The free variables in this study are capital intensity as X1, the size of the company as X2, and leverage as X3.

Capital intensity is projected using a fixed asset intensity ratio. According to Lanis and Richardson (2011) in Husnaini et al (2013), fixed asset intensity ratios are used to measure the comparison of fixed assets to a company's total assets, where this ratio represents the proportion or extent of a company's fixed assets from its total assets. The calculation formula of fixed asset intensity ratio according to Lanis and Richardson (2011) in Husnaini et al (2013) is as follows:

$$Capital\ intencity = \frac{Total\ fixed\ asset}{Total\ Asset}$$

The size of the company is projected using the natural logarithm of a fixed asset to find out how large the size of the company is through the fixed assets it owns. Delgado, Rodriguez and Arias (2012) in their research used total assets as a determinant of the size of the company because the company tends to have positive cash flow and is considered to have good performance and prospects over a long period of time when the company's total assets are large in number. The calculation formula of the size of the company according to Delgado, Rodriguez and Arias (2012) is as follows:

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

Leverage is projected using Debt to Total Asset Ratio (DAR). According to Cashmere (2008:156), Debt to Total Asset Ratio (DAR) is the debt ratio used to measure the comparison between total debt and total assets. The higher this ratio means the greater the amount of loan capital used to invest in assets to generate profits for the company. DAR is used to measure how much the company's assets are financed with total debt. The calculation formula of Debt to Total Asset Ratio (DAR) by Cashmere (2008:156) is as follows:

$$DAR = \frac{Total\ Liability}{Total\ Asset}$$

The formulation of the model in the study is titled "The Influence Of Capital Intensity, Firm Size, And Leverage On Tax Avoidance in Jakarta Islamic Index Company". Dependent Variable Relationship (Y) is associated with an independent variable (X) used in the equation:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

Figure 1. Hypothetical Framework
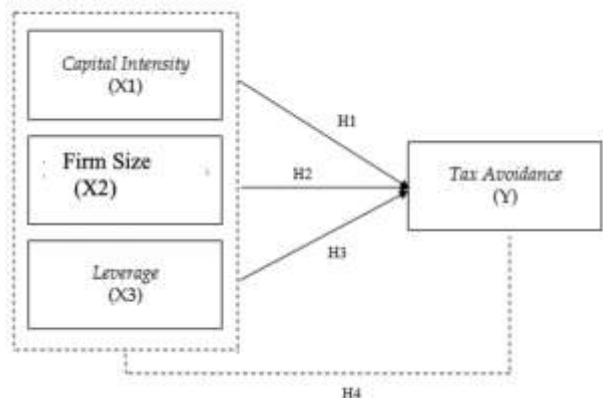


## 3. Results and Discussion
### 3.1. Results

The data analysis technique used in this study is Multiple Regression Analysis (MRA) or multiple linear regression analysis using the SPSS program. This technique is used to look at the influence of capital intensity, the size of the company, and leverage on tax avoidance on companies registered in the Jakarta Islamic index (JII) period 2015-2019. The results of the double linear regression analysis can be seen in Table 1

**Table 1.**
**Multiple Linear Regression Test**

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | | |
| 1 (Constant) | .233 | .456 | | .511 | .612 |
| Capital Intensity | .329 | .099 | .455 | 3.355 | .002 |
| Firm Size | -.004 | .015 | -.033 | -.244 | .808 |
| Leverage | -.176 | .083 | -.255 | -2.127 | .038 |

*Source : data produced, SPSS*

Based on the table above can be created regression equations as follows:

Y = 0,233+0,329X1-0,004X2-0,176X3+e

The regression equation shows the direction of the influence of capital intensity-free variables, the size of the company, and the leverage of tax avoidance. The regression coefficient of free variables marked positively means it has a direct effect on tax avoidance, while the regression coefficient of negatively marked free variables means it has the opposite effect on the tax avoidance described as follows:

A constant of 0.233 states that if variable Y is considered constant, then tax avoidance is 0.233. The regression coefficient (X1) of 0.329 states that each addition of 1 unit will increase tax avoidance by 0.329%.

The regression coefficient (X2) of -0.004 states that each addition of 1 unit will decrease tax avoidance by 0.004%. The regression coefficient (X3) of -0.176 states that each addition of 1 unit will decrease tax avoidance by 0.176%.

Test F aims to see if all independent variables included in the model have a co-effect on dependent variables. Based on table 2 it can be seen that this equation model has a sig value of 0,000 which is smaller than the α significance level of 0.05 which means that independent variables simultaneously or together affect dependent variables so that it can be concluded this model is worth using or fit. This answers the hypothesis 4 (H4) which is that capital intensity, company size, and leverage simultaneously affect tax avoidance is true.

The R test aims to measure how far the model's capabilities explain variations in independent variables. The higher the coefficient value of the determination then the higher the ability of independent variables to explain the varibel dependent.

**Table 3.**
**Uji R$^2$**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .556[a] | .309 | .268 | .09300944 |

*Source : data produced, SPSS*

Based on table 3 shows that the r2 value of 0.309 means that 30.9% variation in tax avoidance rate change is influenced by capital intensity, company size, and leverage. The remaining 69.1% was influenced by other factors not included in the research model.

### 3.2. Discussion

Based on table 1 shows that the capital intensity variable has a sig value smaller than the significance of α 0.05 which is 0.002 which means partially variable capital intensity has a significant effect on tax avoidance. It can be concluded that hypothesis one (H1) is accepted, namely capital intensity affects tax avoidance. The results of this study are in line with previous research conducted by Nyoman Budhi Setya Dharma & Naniek Noviari (2017) and Ria Rosalia Purnomo (2016) which found that capital intensity has a significant effect on tax avoidance.

**Table 2.**
**Uji F**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | .197 | 3 | .066 | 7.599 | .000[b] |
| | Residual | .441 | 51 | .009 | | |
| | Total | .638 | 54 | | | |

*Source : data produced, SPSS .*

The company size variable has a sig value greater than 0.05 which is 0.808 which means partially the company size variable has no significant effect on tax avoidance. It can be concluded that hypothesis two (H2) is rejected, because the two hypotheses are formulated that the size of the company affects tax avoidance. The results of this study proved the results of research conducted by Cahyono, Andini, and

Raharjo (2016) as well as Ni Nyoman and I Ketut (2014) which found that the size of the company had no significant effect on tax avoidance. Leverage variables have a sig value smaller than the α 0.05 significance level of 0.038 which means partially variable leverage has a significant effect on tax avoidance. It can be concluded that hypothesis three (H3) is accepted, i.e. leverage affects tax avoidance. The results of this study are in line with research conducted by Calvin Swingly and I Made Sukartha (2015) as well as Judi Budiman and Setiyono (2012) which found that leverage has a significant effect on tax avoidance.

## 4. Conclusion

From a series of tests that have been conducted in this study proves empirically that in companies registered in Jakarta Islamic Index variable Capital intensity and leverage has a significant effect on the tax avoidance while for variables firm size does not have a significant influence on the tax avoidance. Based on the results of data analysis and discussion on test F, it can be concluded that capital intensity, firm size, and leverage simultaneously affect variables bound to tax avoidance.

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