



## The Analysis of Leverage, Return on Assets, and Firm Size on Tax Avoidance

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### ABSTRACT

**Purpose :** The study aims to analyze the effect of leverage, return on assets, and firm size on tax avoidance in Property and Real Estate Companies listed on the Indonesia Stock Exchange (IDX) for the 2010-2016 period.

**Method :** The population in this research are real estate companies listed on the Indonesia Stock Exchange. The sample selection process in this research used a purposive sampling method. Testing the effect of leverage, return on assets, and firm size on tax avoidance is done using multiple linear regression analysis models.

**Findings :** Based on the results of the study, the CETR level is positively and significantly influenced by the level of return on assets and company size. Meanwhile, CETR is negatively and significantly affected by the level of leverage.

**Novelty :** In this study, the sample is focused on property and real estate companies listed on the Indonesia Stock Exchange based on sharia stocks because related research has not been widely studied, so it is necessary to do more about tax avoidance in sharia stocks.

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### INTRODUCTION

Taxes have the most important role in a country. The state collects taxes to fulfill the allocation function of a country. Taxes are the largest source of revenue for a country. Sources of income tax revenue in Indonesia are grouped into corporate tax and personal tax. Taxes for the state are a powerful fiscal tool to achieve the direction of the national economy in achieving its economic goals. The size of the tax will determine the ability of the State Budget to finance state expenditures, both for development financing and for routine budget financing (Simanjutak & Mukhlis, 2012). Therefore, the government aims to maximize tax revenue. However, for companies, taxes are a burden that will reduce the net profit that must be paid by companies as a manifestation and role in increasing national development (Riedel, 2018). This causes differences in interests between the government as the principal and the company as the taxpayer. Principals want as much tax revenue as possible, and taxpayers want minimum tax payments.

The company makes several efforts to make tax payments efficient by minimizing the tax burden within limits that do not violate the rules through tax avoidance activities (Diantari & Ulupui, 2016). Tax avoidance is carried out if there is an opportunity, one of which is the weakness of tax laws which will cause resistance to taxes. Tax avoidance is an effort to reduce legal tax debt, this activity poses a risk for companies to include fines and a bad reputation of the company in the eyes of the public (Gallemore et al., 2014). Tax avoidance does not violate the law, but it is something that in practice cannot be accepted by all parties (Desai & Dharmapala, 2006). This is because tax avoidance has a direct impact on the erosion of the tax base, so less tax revenue is needed by the state (Godfrey et al., 2010). Tax evasion can occur for several reasons. First, the legislators in Indonesia come from different backgrounds such as the government and parliament, while the parliament represents different interests and can be contradicted with one another (Dyreng et al., 2019). Second, tax avoidance can occur because companies are good at taking advantage of loopholes and weaknesses in tax regulations (McGuire et al., 2012).

The phenomenon of tax avoidance in Indonesia can be seen from the Indonesian tax ratio. "The tax ratio

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**Table 1.** Indonesian Tax Ratio

Year	2010	2011	2012	2013	2014	2015	2016	2017
Tax Ratio (%)	11.3	11.8	11.9	11.9	11.4	10.7	10.3	11

Source: Annual Report Directorate General of Taxes

shows the government's ability to collect tax revenue or reabsorb Gross Domestic Product (GDP) from the public in the form of taxes (Zirman, 2017). It can be used to evaluate tax compliance in a country and is an indicator of a country's resilience. Indonesia's tax ratio can be seen in table 1.

Based on table 1. Indonesia's tax ratio is still relatively low. Where the lowest percentage occurred in 2016 which only reached 10.3%. This percentage decreased by 0.4% when compared to the 2015 tax ratio. The property and real estate sector are one source of state revenue that has great potential to increase local tax power, either through local tax instruments or through tax revenue sharing mechanisms (Direktorat Jenderal Pajak, 2014). The property sector, which includes the construction and real estate sectors, is a very important sector because it attracts and encourages activities in various economic sectors, influences the development of the financial sector, and has an impact on economic growth and employment (Direktorat Jenderal Pajak, 2012). The construction and real estate sectors in Indonesia in the last 5 (five) years have grown quite well despite a slowing growth trend, in line with the slowdown in national economic growth (Direktorat Jenderal Pajak, 2015).

In Indonesia, the role of the real estate sector is still smaller than the construction sector, so the real estate sector is still very open for development. Based on the annual report 2015 Directorate General of Taxes, tax avoidance in property and real estate sector companies in Indonesia are still widely practiced by business actors, especially income tax to increase their profits. Tax avoidance is now easier to do by cheating on financial transactions in the business world. Compliance issues are important because they can lead to tax avoidance efforts.

Tax avoidance actions can be reduced by taking into account certain factors such as Leverage (Zirman (2017), Marfirah & Syam (2016), Mayangsari et al. (2015), Oktagiani et al. (2015), Darmawan & Sukartha (2014), Ngadiman & Puspitasari (2014)); Return on Assets (Zirman (2017), Alfajri. et al. (2016), Oktagiani et al. (2015), Rinaldi & Cheisviyanny (2015), Darmawan & Sukartha (2014), and Ngadiman & Puspitasari (2014)); Company Size (Zirman (2017), Asri & Suardana (2016), Diantari & Ulupui (2016), Rinaldi & Cheisviyanny (2015)). There is a research gap related to the factors that influence the existence of tax avoidance measures.

Mayangsari et al. (2015) detected that leverage influenced tax avoidance. Marfirah and Fazli (2016) found that leverage has a significant negative impact toward effective tax rates. However, Kurniasih and Sari (2013), Darmawan dan Sukartha (2014), Ngadiman and Puspitasari (2014), Oktagiani et al. (2015), Reinaldo (2017) indicated leverage did not influence toward tax avoidance.

Maharani and Suardana (2014), Kurniasih and Sari (2015), Oktagiani et al. (2015), Alfajri et al. (2016), indicated that return on assets had a negative and significant influence toward tax avoidance and return on assets has a significant positive impact toward effective tax rate. However, Darmawan dan Sukartha (2014), Rinaldy and Cheisviyanny (2015), detected return on assets had a positive and significant toward tax avoidance. Reinaldo (2017) indicated the return on assets had to influence toward tax avoidance.

Rilsayeni, et al., (2016) and Reinaldo (2017) detected that firm size did not influence toward tax avoidance. However, Swingly and Sukartha (2015), Diantari and Ulupuli (2016) indicated that firm size has a significant positive influence toward tax avoidance. Oktagiani et al. (2015), Asri and Suardana (2016) found that firm size influenced tax avoidance. While Rinaldi & Cheisviyanny (2015) indicated that firm size has a significant negative influence toward tax avoidance.

In this study, the sample is focused on property and real estate companies listed on the Indonesia Stock Exchange, because there are quite a few types of research conducted on the Indonesia Stock Exchange, while research analyzing tax evasion in sharia-based property and real estate companies is very minimal. The existence of research gaps that the difference of results influences and significance in every independent variable of previous studies that show the diversity of the results of research on the analysis of tax avoidance encourages the researcher to investigate the factors that can reduce or inhibit payment of taxes in property and real estate companies. In property and real estate companies, there is tax avoidance practice that is marked by the growth of tax revenue to fall in 2011-2015.

These phenomena and previous studies with heterogeneous results are interesting to review, further research is needed on what factors influence tax avoidance as a proxy for the Cash Effective Tax Rate (CETR) (Sara et al., 2016). CETR is calculated by comparing the amount of tax paid with profit before tax which shows that the company tax has been paid (Ritonga, 2018). Tax avoidance in the property and real estate sector is indicated by companies that have a CETR value <1. This can indicate that property and real estate companies do tax avoidance (Agustina & Aris, 2017). Therefore, the sample companies in this study have a CETR <1 so that it can reflect the practice of tax avoidance (Gallemore & Labro, 2015).

In this study, the sample is focused on property and real estate companies listed on the Indonesia Stock Exchange based on sharia stocks because related research has not been widely studied, so it is necessary to do more about tax avoidance in sharia stocks. This study aims to analyze the effect of leverage, return on assets, and firm

size on tax avoidance in Property and Real Estate Companies listed on the Indonesia Stock Exchange (IDX) for the 2010-2016 period. To achieve the objectives of this study, a strong theory is needed to underlie the results of this study to obtain strong results and in accordance with the theory. The main theory underlying this research is agency theory.

According to Jensen & Meckling (1976), an agency relationship as a contract under which one or more person (the principals) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent. In taxation, the government and companies have different interests, giving rise to conflicts of interest and agency problems for both parties. If both parties have the same goal of maximizing the value of the company, it is believed that the agent will act in the interests of the principal (Rosyidah et al., 2022). Agency theory has the assumption that each party who is motivated by his interests can create a conflict of interest between the principal and the agent. Therefore, a company (agent) will act in its own interest so that it can cause agency problems with the government (principal). The company will carry out good tax planning to minimize the tax burden. Tax planning (tax planning) is a structuring action related to potential urgent tax consequences to control every transaction from existing tax consequences. With good tax planning, it reflects that there are no tax avoidance actions carried out in an area.

Agency theory is needed by all stakeholders to minimize tax avoidance measures in a company. In this study, conflicts occur in the interests of corporate profits between discuss as principal and corporate management as an agent. The difference of interest between the tax authorities and the companies based on the agency theory will lead to non-compliance by taxpayers or the management of companies that affect the company to tax avoidance.

Tax is a mandatory contribution to the state owed by individuals or entities that are enforceable under the Act, by not getting the rewards directly and used for the purposes of state for the greatest prosperity of the people (The Act Number 28 Year 2007). Tax avoidance is possible, the tax burden can be reduced without breaking the law and taking the risk of paying a fine (Desai & Dharmapala, 2006). Interestingly, increasing the fines can also have the opposite effect by initiating tax avoidance. However, self-employed taxpayers have also more opportunities for tax evasion and opportunities might further increase the number of different income sources (Wu et al., 2020). Tax avoidance is a term used to describe the legal arrangements of taxpayer's affairs to reduce his tax liability (Boone et al., 2013).

According to Kurniasih & Ratna Sari (2013), the leverage ratio is a ratio that measures the ability of both long-term and short-term debt to finance company assets. One of the factors that influence leverage is tax policy. The tax burden can reduce the company's net profit (Goh et al., 2016). Therefore, companies will do everything they can to pay taxes as low as possible and try to avoid taxes or even avoid taxes, both legal and illegal (Mayangsari et al., 2015). Leverage in this study using Debt-to-Equity Ratio (DER).

Return on Assets (ROA) is a ratio used to measure the ability to manage assets to earn a profit (Badertscher et al., 2013). ROA is also able to measure the company's ability to generate past profits so that they can be projected for the future. Company size is a picture of the size of a company based on the number of assets owned (Darmawan & Sukartha, 2014).

Based on the literature review and research that has been done, the theoretical thinking model that underlies this research was developed. According to Zirman, (2017), Alfajri. et al. (2016), Asri & Suardana (2016), Diantari & Ulupui (2016), Marfirah & Syam (2016), Mayangsari et al. (2015), Oktagiani et al. (2015), Rinaldi & Cheisvianny (2015), Darmawan & Sukartha (2014), Ngadiman & Puspitasari, (2014) the high level of tax avoidance can be overcome through enhancement leverage, return on assets (ROA), and firm size.

The leverage ratio is the ratio that measures the ability of debt both long term and short term to finance the company's assets. That is how much the debt burden is borne by the company as compared to its assets Kurniasih & Ratna Sari (2013). Brigham & Houston (2007) states that debt is a financial leverage and one of the main reasons is because the use of debt due to the loan interest is a tax deduction, so the trend of companies borrowing will lead to aggressive corporate tax avoidance. Meanwhile, according to Darmawan & Sukartha (2014) large companies are more likely to use their own resources instead of using debt financing. Some empirical evidence about the influence of firm size against tax avoidance, indicates that the results of research that has been done by Mayangsari et al. (2015)

Based on Marfirah & Syam (2016) detected that leverage influenced tax avoidance. Marfirah & Syam (2016) found that leverage has a significant negative association with the effective tax rate. However, Darmawan & Sukartha (2014), Kurniasih & Ratna Sari (2013); Ngadiman & Puspitasari (2014, Oktagiani et al. (2015); and Zirman (2017) indicated resources to leverage did not influence toward tax avoidance. Based on the above supported by the research results, it can be submitted hypothesis 1.

#### **H<sub>1</sub>: Leverage influences toward tax avoidance**

Return On Assets is the ratio used to measure the ability of a company's management to make a profit overall. The higher this ratio, the better and more efficient productivity of corporate assets in the net profit of the company.

Return on assets is high on a company, it will cause the company to undertake tax planning carefully so that it will cause the company would pay lower taxes and tends to companies that the higher the return on assets it indicates that the company minimizes the tax burden her or do tax avoidance. The higher profitability higher the CETR,

**Table 2.** Sample Selection Process Based on The Criteria

No.	Criteria	Accumulation
	The property and real estate companies listed in the Indonesia Stock Exchange (IDX) and publish the audited financial statements as of December 31 respectively.	47
	Minus:	
1	Companies that are not Islamic Stock.	(6)
2	Companies that are not out during the period 2010-2016.	(12)
3	The company has complete data.	(8)
4	Companies with negative earnings.	(6)
5	The company has a value of CETR > 1.	(3)
	Total Sample Companies	12
	Years of Observation (2010-2016)	7
	Total of Observations (12 x 7)	84

Source: The Processed Secondary Data (2017)

the lower the level of a company doing aggressive tax measures in terms of tax payments, and therefore companies tend not to tax avoidance.

Some empirical evidence about the influence of return on assets against tax avoidance, indicates that the results of research that have been done by Alfajri. et al. (2016), Kurniasih & Ratna Sari (2013), Maharani & Suardana (2014), and Oktagiani et al. (2015) indicated resources to that return on assets had a negative and significant influence toward tax avoidance and return on assets has a significant positive association with the effective tax rate. However, Darmawan & Sukartha (2014), Rinaldi & Cheisviyanny (2015) detected return on assets had positive and significant toward tax avoidance. Zirman (2017) indicated resources to return on assets influenced tax avoidance. Based on the above supported by the research results, it can be proposed hypothesis 2.

### **H<sub>2</sub>: Return on assets influences toward tax avoidance**

Firm size can determine the size of the total value of assets owned by the company where the greater the company's total assets will also increase the number of the productivity of the company. It will generate increased profits and affect the level of tax payments. Large companies tend to have a broader space for good tax planning and adopting effective accounting practices to lower the company's effective tax rate. On the size of large companies are more likely to engage in tax avoidance because they can delay the distribution of income or provide income to the holding. Some empirical evidence about the influence of firm size against tax avoidance, indicates that the results of research that has been done by Winda Rilsayeni & Herawati (2016) and Zirman (2017) detected firm size does not significantly influence tax avoidance. While the research conducted by Diantari & Ulupui (2016) and Swingly & Sukartha (2015) indicate that company size has a positive effect toward tax avoidance and research Asri & Suardana (2016) and Oktagiani et al. (2015) showed that firm size company a significant effect toward tax avoidance, Rinaldi & Cheisviyanny (2015) showed that firm size significant negative effect toward tax avoidance. Based on the above supported by the research results, it can be submitted hypothesis 3.

### **H<sub>3</sub>: Firm size influences toward tax avoidance**

## **RESEARCH METHODS**

This research uses a causal-explanatory study design with a quantitative approach. This study applied a causal research design is as follows can be used to solve the problems of the government, namely the low level of tax revenue, which is characterized by declining tax revenue effectivity in Indonesia (Annual Report Directorate General of Taxes, 2015). The growth of tax revenues of the real estate sector has fluctuated; Total taxpayers of corporate every year increased but the tax revenue in real estate and the total tax revenue has fluctuated; declining tax revenue growth in the real estate sector (Annual Report Director General of Taxes, 2015). The purpose of this research is used to determine the effect of a causal relationship, between variable Return on Assets (ROA), Leverage, and Firm Size of Tax Avoidance.

The data collection method uses a literature study such as annual reports from the Indonesia Stock Exchange and the company's official website. The population in this research are real estate companies listed on the Indonesia Stock Exchange. The sample selection process in this research used a purposive sampling method, which can be seen in table 2. The research instrument consists of several variables, namely the independent variable and the dependent variable. The dependent variable used is tax avoidance as a proxy for the Cash Effective Tax Rate (CETR). The independent variables in this study are Debt Equity Ratio (DER), ROA, and firm size.

The operational definition of each variable can be seen in table 3. Based on the source, the type of data used

**Table 3.** The Operational Definition of Variables

No.	Variable	Operational Definition	Scale	Measurement
1	Tax Avoidance (Mayangsari et al., 2015; Oktagiani et al., 2015; Rinaldi and Cheisviyanny, 2015; Swingly and Sukartha, 2015; Alfajri et al., 2016).	Tax avoidance is a taxpayer's attempt to take advantage of opportunities (loopholes) contained in legislation to minimize their tax burden.	Ratio	CETR = Tax Paid / Pre Tax Income
2	Return On Assets (ROA) (Kurniasih and Sari, 2013; Oktagiani, 2015; Rinaldi and Cheisviyanny 2015; Sudana (2015); Alfajri, 2016; and Reinaldo, 2017).	Return on Assets (ROA) is the ratio between net income by total assets at the end of the period, which is used as an indicator of a company's ability to generate profits.	Ratio	ROA = Income After Tax / Total Assets
3	Leverage (Kurniasih and Sari, 2013; Ngadiman and Puspitasari, 2014; and Oktagiani et al., 2015).	Leverage is the ratio that measures the ability of the company's debt both short term and long term the company uses to finance the company's assets.	Ratio	DER = Total Debt / Total Equity
4	Firm Size (Kurniasih and Sari, 2013; Oktagiani, 2015; Rinaldi and Cheisviyanny, 2015).	The size of the company is large scale which can be classified as a small enterprise.	Ratio	Size = Total Assets

Sources: Kurniasih and Sari (2013), Ngadiman and Puspitasari (2014), Mayangsari et al. (2015), Oktagiani et al. (2015), Rinaldi and Cheisviyanny (2015), Sudana (2015), Swingly and Sukartha (2015), Alfajri et al. (2016), and Reinaldo (2017).

is secondary data sourced from the annual reports of real estate companies that have been listed on the Indonesia Stock Exchange during the 2010-2016 period. This study uses pooled data, which is a combination of time series data and cross-sections. The data collection method uses a literature study obtained from articles, literature, the Indonesia Stock Exchange, and the company's official website according to the research sample. The significance level used is 0.05 ( $\alpha = 5\%$ ). The equation 1 shows the multiple linear regression model in this research.

$$\text{Tax avoidance} = \alpha - \beta_1\text{DER} + \beta_2\text{ROA} + \beta_3\text{Size} + e \dots\dots\dots 1$$

In this study, it has data with extreme values that can make the data biased and makes the data undistributed normally. Therefore, extreme values need to be eliminated using an outlier test with Mahalanobis. Based on the processing results, there are thirty-eight data that have a Mahalanobis probability value of less than 0.001 which indicates that the data is outlier. Therefore, the data used in this study became reduced because there were thirty-eight data found by outliers that had to be eliminated. Furthermore, classical assumption tests were carried out, namely normality, multicollinearity tests, heteroskedasticity tests, and autocorrelation tests. Normality test aims to test whether the regression model, confounding variables, or residuals have a normal distribution or not. Normal Probability Plot graphs show that the points spread around the diagonal line and follow the direction of the diagonal line. This shows that the regression model to meet the assumptions of normality or normal distribution. Normality test results with analysis of graphs can be seen in figure 2.

Multicollinearity test aims to test whether the regression model found a correlation between the independent variables. Multicollinearity can be seen from the value of Tolerance, Variance Inflation Factor (VIF) and the correlation matrix between variables. Tolerance and VIF The results are shown in table 4.

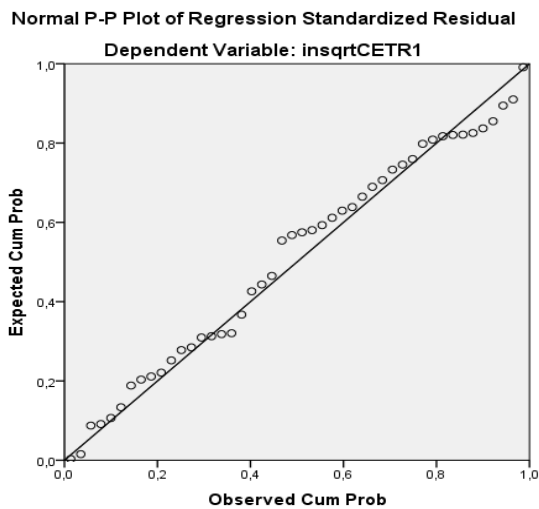
Based on Table 4, all the independent variables declared free from multicollinearity problems. It is shown from the results of Tolerance value  $> 0.10$ , as well as the VIF nothing is above 10. So, it can be concluded that there is no multicollinearity problem.

Heteroscedasticity test is used to determine whether the classic assumption deviation heteroscedasticity namely inequality variants of residuals for all observations in the regression model. Heteroscedasticity test in this study using scatterplot graph. Scatterplot graph the results can be seen in figure 3. Based on figure 2, seen that the points spread above and below the number 0 on the Y axis at random, then there is no heteroscedasticity or the model homoscedasticity.

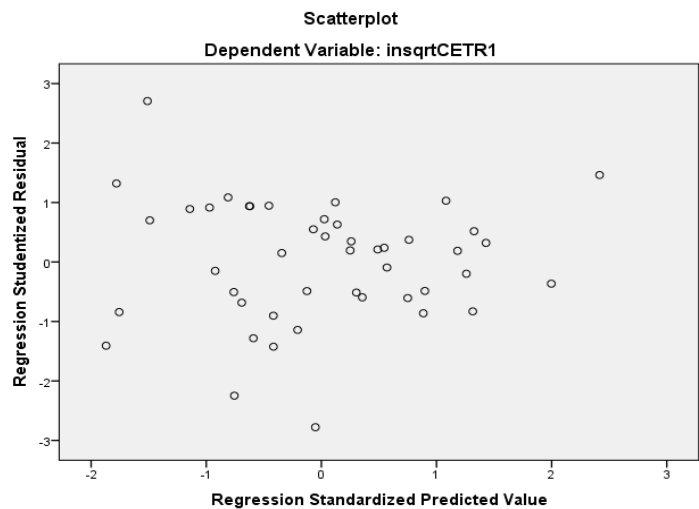
**Table 4.** Value Tolerance and VIF

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
1 LOGROA	.951	1.051
LNDER	.941	1.063
SQRTSIZE	.913	1.095

Source: The Processed Secondary Data (2017)



**Figure 2.** Normality Test Chart Normal PP-Plot  
Source: The Processed Secondary Data (2017)



**Figure 3.** The Scatterplot Graph  
Source: The Processed Secondary Data (2017)

Autocorrelation test aims to test whether a linear regression model was no correlation between bullies' error (residual) in period  $t$  with an error in period  $t-1$  (previous). Autocorrelation test used in this study is to test the Durbin-Watson (DW test). DW test shows that the value is 1.822. If the DW test value compared to the value of the table where the significance of 0.05, the number of samples = 46 and the number of variables = 4, then the Durbin-Watson tables will be obtained  $dL = 1.3448$  and  $dU = 1.7201$ . Therefore, DW value is 1.822 when  $du < DW < 4-du$  ( $1.7201 < 1.822 < 3.2799$ ), it can be concluded there is no positive or negative autocorrelation in regression models. Based on the test results of classical assumptions show that the data are normal, not multicollinearity, including data that are heteroscedasticity, and there is no autocorrelation.

**RESULTS AND DISCUSSIONS**

Descriptive statistical tests were conducted to provide an overview of the data seen from the maximum, minimum, standard deviation, and mean. The results of the descriptive statistical analysis can be seen in table 5 that show the amount of data used in this study is 84 (eighty-four) data on 12 (twelve) companies for 7 (seven) years in the annual period, namely 2010-2016. Tax avoidance as the dependent variable proxied through the Cash Effective Tax Rate (CETR) has an average of 0.1625 with a standard deviation of 0.09715. CETR has minimum and maximum values of 0.00 and 0.52.

Debt to Equity Ratio as a proxy for leverage (second independent variable) has an average of 1.1043 with a standard deviation of 0.54504. DER has a minimum value of 0.24 and a maximum value of 2.85. Return on Assets as the first independent variable has an average of 0.0611 with a standard deviation of 0.04204. ROA has a minimum value of 0.01 and a maximum value of 0.25. Company size as the third independent variable has an average of 9,734,2024 with a standard deviation of 9,460,16647. Company size has a minimum value of 136.00 and a maximum value of 45,604.00. This variable is in one billion rupiah.

The data used in this study has passed the classical assumptions test consisting of the normality test, linearity test, multicollinearity test, autocorrelation test, and heteroscedasticity test. The results of the linearity test show the results of the linear regression model. In addition to the linearity test, the normality test also shows that the data is normally distributed. The results of the multicollinearity test of all independent variables were declared free from the multicollinearity problem. The heteroscedasticity test shows that the correct model is homoscedasticity or not heteroscedasticity. The results of the autocorrelation test show that the data does not have autocorrelation in the regression model.

In this study, several variables are not normally distributed. These variables include return on assets and le-

**Table 5.** Descriptive Statistics Results

	N	Minimum	Maximum	Mean	Std. Deviation
CETR	84	0	0.52	0.1625	0.09715
DER	84	0.24	2.85	1.1043	0.54504
ROA	84	0.01	0.25	0.0611	0.04204
SIZE	84	136	45604	9734.202	9460.16647
Valid N (listwise)	84				

Source: The Processed Secondary Data (2017)

**Table 6.** Test Result from the Multiple Regression

Variable	t <sub>statistic</sub>	Sig.	
(Constant)	113.67	0.000	
LnDER	-2.575	0.014	H <sub>1</sub> is supported
LogROA	11.003	0.000	H <sub>2</sub> is supported
SqrtSIZE	4.586	0.000	H <sub>3</sub> is supported
F <sub>stat</sub>	42.396		
Sign. F <sub>stat</sub>	0.000 <sup>b</sup>		
Adj. R <sup>2</sup>	0.734		

Source: The Processed Secondary Data (2017)

verage. Therefore, changes are made to these variables through Log10 on the company's ROA data and Ln on the leverage variable as proxied by DER. In addition, the firm size variable which is proxied by total assets also has an abnormal distribution and the range between variables is too far from a trillion units. Therefore, the firm size variable is also changed to the square root of the company's total assets. Test Result the Multiple Regression can be seen in table 6.

Based on Table 6, the results of the statistical F test show the calculated F value (42.396) > F table (2.83) with a significance level of 0.00 < 0.05. The alternative hypothesis (H<sub>a</sub>) is the leverage, return on assets, and firm size variables simultaneously influence toward tax avoidance is accepted so that this research model is feasible to be used as a problem-solving research model. The coefficient of determination (Adjusted R square) based on Table 4 is 0.734 (73.4%). This shows that the proposed research model has good feasibility because the independent variables used are leverage, return on assets, and firm size variables which can explain well where the dependent variable is tax avoidance. Only 0.266 (26.6%), which can be explained by other variables outside the leverage, return on assets, and firm size variables.

This study uses a table of 2.01808 with a significance of 5%. Based on Table 4, the results of the t-statistical test show that all variables, namely leverage, return on assets, and firm size influence toward tax avoidance. This means that the research model is proven to have a good goodness of fit in terms of its significance. Leverage has a value of tcount > ttable (|-2.575| > 2.01808) and a significance level of 0.014 which is less than 0.05. The return on assets variable has a value of tcount > ttable (11.003 > 2.01808) and a significance level of 0.000. Firm size has a value of tcount > ttable (4.586 > 2.01808) and a significance level of 0.000. This shows that all independent variables both leverages, return on assets, and firm size influences toward tax avoidance. Thus, all hypotheses stating that leverage, return on assets, and firm size influences toward tax avoidance are accepted. The results of the model estimation is shown by equation 2.

$$\text{CETR} = 0.989977 - 0.009646 \text{ DER} + 0.071907 \text{ ROA} + 0.000185 \text{ SIZE} \dots\dots\dots 2$$

Where:

- CETR = Tax Avoidance
- DER = Leverage
- ROA = Return on asset
- SIZE = Firm size

Tax avoidance is a taxing affair that is engineered but is still within the framework of tax regulations (lawful) (Wang et al., 2020). Measurement of the level of tax evasion in Indonesia still uses several indirect approaches due to limited data on corporate taxation. Therefore, tax avoidance in this study uses the Cash Effective Tax Rate (CETR) proxy. CETR is the cash payment of taxes on company profits before income tax (Guenther et al., 2017, 2019). Tax avoidance in property and real estate companies listed on the Indonesia Stock Exchange (IDX) for the period 2010 to 2016 is still high, as indicated by the low CETR value. This is influenced by several factors, including leverage, return on assets, and firm size.

Leverage a significant negative effect toward tax avoidance. However, because CETR is inversely related to tax avoidance, if the CETR is negative then tax avoidance becomes positive. Therefore, tax avoidance is positively and significantly influenced by leverage. This can be explained that for companies with high leverage levels, the practice of tax avoidance will also increase. This is because companies that have high debt will get tax incentives in the form of a deduction of interest on such loans. The company that has a high tax burden can make tax savings by adding the company's debt. By increasing the debt to obtain large tax incentives the company carries out tax avoidance. The higher the leverage of a company, the higher the interest costs borne by the company. Interest costs become income deductions that can be used to save toward taxes. This means that the higher the amount of funding from third-party debt used by the company and the higher the interest costs arising from the debt. The higher interest costs will have an impact on reduced corporate tax burden (Kurniasih & Ratna Sari, 2013). In other words, the higher the company's debts higher corporate tax avoidance. Based on data from this study, the level of leverage is still high and CETR is still low so that it can be seen the practice of tax avoidance is still high. The results obtained

in this study are consistent with Kurniasih & Ratna Sari (2013), Marfirah & Syam (2016), Mayangsari et al. (2015), and Swingly & Sukartha (2015).

CETR is positively and significantly influenced by the return on assets. However, because CETR is inversely related to tax avoidance so if CETR is positive then tax avoidance becomes negative. Therefore, tax avoidance is negatively influenced by the return on assets. This means that the lower the ROA, the higher the tax avoidance practices conducted (Pangaribuan et al., 2021). A high ROA indicates that the level of profits from the company is also high which reflects the company's good efficiency and careful tax planning to produce an optimal tax. A high profit can produce a high tax burden anyway so the action will decrease tax avoidance practices. The higher profitability higher the CETR, the lower the level of a company doing aggressive tax measures in terms of tax payments, and therefore companies tend not to tax avoidance. The increase in ROA will increase CETR, so ROA has a positive relationship with CETR. In this study, the CETR is still low, and ROA is still low which reflects the tax avoidance measures are still high. That is because the company that makes a profit greater will be able to organize income and tax payments so tend not to tax avoidance. The results of this study are in line with Maharani & Suardana (2014), Rinaldi & Cheisviyanny (2015), and Zirman (2017).

CETR is also positively and significantly influenced by firm size. However, because CETR is inversely related to tax avoidance so if CETR is positive then tax avoidance becomes negative. Therefore, tax avoidance is negatively influenced by firm size. This means that the lower the firm size, the higher the tax avoidance practices are carried out. In essence, the greater the size of the company indicates that the company received a high and stable income each period. The larger the size of the company will lead the company to the attention of the government and the community so firm enough in utilizing the resources they must manage their tax and is unlikely to make tax avoidance measures. A large company with total assets and great resources as well as effective performance will have the opportunity to earn a tax incentive from the government that would reduce the tax burden without having to commit acts of tax avoidance. Large companies that have large assets will avoid tax avoidance. This is because of a high level of risk, giving a bad image to the company if the action unfolds and requires huge costs that can reduce the effectiveness of the company's financial performance. Based on this research the company sample is still a relatively small company with assets which, therefore CETR is still low and reflects high practices of tax avoidance. The results are consistent with the theory that explains the political costs that large companies tend to not practice tax avoidance because these companies will be the focus of the government. The results of this study are also in line with the results of research conducted by Kurniasih & Ratna Sari (2013), Oktagiani et al. (2015), Swingly & Sukartha (2015), and Diantari & Ulupui (2016).

The results of this study are by agency theory. It is shown that in this study, conflicts occur in the interests of corporate profits between fiscus as principal and corporate management as an agent. The difference of interest between the tax authorities and the companies based on the agency theory will lead to non-compliance by taxpayers or the management of companies that affect the company to tax avoidance. To avoid conflicts of interest, companies seek to increase leverage and reduce corporate profits, causing the level of tax avoidance to increase as well because companies prefer to minimize tax payments.

The theoretical implications in this study were developed to strengthen support for some previous research that is a reference in this study. It is the leverage that has a positive significant influence on tax avoidance. Leverage has a negative significant influence toward Cash Effective Tax Rate. Return on assets and firm size have a negative significant influence toward tax avoidance in terms of significance level and strengthening of the positive direction indicates the direction in which the return on assets and firm size influence toward Cash Effective Tax Rate.

## CONCLUSIONS

Based on the analysis and discussion, leverage, return on assets, and firm size influences toward tax avoidance. Leverage has a positive and significant influence toward tax avoidance. Return on assets has a negative and significant toward tax avoidance. Firm size also has the same effect as the return on assets that affect tax avoidance.

The limitation in this study is that the tax avoidance variable only uses CETR as a proxy for the calculation. Cash ETR is an effective tax rate based on the amount of cash tax paid by the company in the current year. While CETR can provide information on how effective a company's ability to pay taxes in cash, it cannot be directly used to measure tax avoidance more deeply. To assess the company's tax avoidance actions, it is necessary to conduct a more in-depth analysis of tax practices in the company and the actions taken by the company concerned not only from paying taxes in the form of cash.

Based on the limitation, suggestions for further research are that it is necessary to add more samples so that more comprehensive companies can be sampled, not just one sector, so that it can be used to predict better and better future research results. In addition, using a study period with a longer period to get good research results. adding or using other independent variables that affect tax avoidance such as tax loss carryforwards, good corporate governance, executive character, or other variables that can be a source of new information for further research. Future research is expected to use different proxies to measure tax avoidance such as the book-tax gap. Suggestions for other stakeholders is that the Directorate General publishes reports on corporate tax payments and improves tax regulations to narrow the gap for tax avoidance actions both legally and illegally. The government must provide



clear and firm rules between allowable tax avoidance and non-allowed tax avoidance so that taxpayers can make tax planning in accordance with tax regulations.

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