

## The Effect of Capital Intensity, Leverage, Profitability, Firm Size, And Liquidity on Tax Aggressivity

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Article Information	Abstract
<p>Article History: Received August 2023 Accepted Ocotober 2023 Published March 2024</p>	<p>This study aims to examine the effect of Capital Intensity, Leverage, Profitability, and Company Size on Tax Aggressiveness. This study uses multiple linear regression analysis with the SPSS (Statistical Package for Social Sciencess) program. The population in this study were food and beverage companies listed on the Indonesia Stock Exchange during the observation period 2017-2022. The sampling technique used in this study was purposive sampling method, which is a sampling technique based on criteria determined by the researcher. Based on the sample selection criteria, 48 research data were obtained. The results of this study indicate that: (1) Capital Intensity has a positive and significant effect on Tax Aggressiveness; (2) Leverage has no effect on Tax Aggressiveness; (3) Profitability has no effect on Tax Aggressiveness; (4) Company Size has a positive and significant effect on Tax Aggressiveness.</p>
<p>Keywords: Capital Intensity, Leverage Profitability, Firm Size, Tax Aggressivity</p>	

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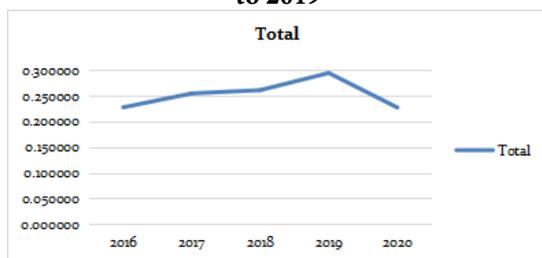
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## 1. Introduction

Indonesia is one of the developing countries with a large area and a relatively large population of more than 250 million people. This shows that the country's tax revenue is potential. Taxes play a very important role for the state because they are used for financing and national development of a country's progress. Therefore, every country with individual taxpayers or legal entities according to tax legislation is required to pay taxes and deposit their tax obligations into the state treasury. Erawati & Anjar (2022) in their research stated that taxes are a collection of people's dues in the form of money or goods reducing the company's tax burden (Andhari & I Made, 2017).

Tax aggressiveness is one of the company's efforts to reduce the tax burden. The company seeks to minimize the tax burden as long as it does not violate the rules determined by profit management. Company profits will be a tax deduction factor, so companies need to do tax planning appropriately and efficiently. which is one of the factors that reduce profits (Erawati & Anjar, 2022). Jesslyn (2022) defines earnings tax aggressiveness is an act with the aim of minimizing taxes that must be borne either by legal (tax avoidance) or illegal (tax evasion) means.

**Table 1. The Average Effective Tax Rate in Food and Beverage Companies from 2016 to 2019**



Sumber: Results Processing Data 2023

Based on Figure 1.1, it can be seen that the average effective tax rate in food and beverage companies from 2016 to 2019 tends to increase but in 2020 the effective tax rate of food and beverage companies has decreased from this phenomenon, researchers are interested in re-examining what factors affect the effective tax rate. Apart from the above phenomena, there are still differences in research results from previous researchers (research gap) which are of interest to researchers to re-examine the factors that influence tax aggressiveness, namely capital

intensity, leverage, profitability, and firm size, and liquidity.

Yuliana & Djoko (2018) Capital Intensity describes how the company sacrifices in spending funds for its operating activities and funding on assets in order to make a profit. The higher the investment in the company's fixed assets used for operational activities is expected to increase company profits

The leverage ratio explains the amount of debt the company has which is useful in making decisions about funding its assets. The greater the debt owned, the greater the interest expense that must be paid by the company, this will reduce the pre-tax profit earned by the company. Therefore, the company will take advantage of the loophole to carry out tax avoidance activities in reducing the company's tax burden (Andhari & I Made, 2017).

Ayem & Afik (2019) defined Profitability is a factor that must receive important attention because to carry out its operational activities a company must be in a profitable condition. The profitability of the company can be seen from the level of corporate profits which affects taxes so that if the company has high profits, the tax burden will also be high (Lubis & Identiti, 2022).

Rohmansyah et al., (2021) describe that company size is a scale that is grouped based on the size or smallness of a company from various points of view, one of which is seen based on the size of the fixed assets owned by the company. The number of fixed assets owned by the company is expected to be able to support the company's operational activities so that the company maximizes profits.

Some of the cases mentioned above show that the level of tax evasion or tax aggressiveness in Indonesia remains extremely high. Therefore, the researchers are interested in conducting a study entitled "The Effect of Capital Intensity, Leverage, Profitability, and Firm Size on Tax Aggressiveness (An Empirical Study on Mining Sector food and beverage companies Listed on the Indonesia Stock Exchange in 2017-2022)". It is expected that companies will fulfill their tax obligation more obediently, thereby increasing the country's state revenues.

This study compiled the research conducted by Gunawan & Fatimah (2019). Previous research used corporate governance mechanisms and earnings management, while this study added another variable, namely firm size. Based on suggestions from previous researchers, researchers feel encouraged to use

companies from other sectors and add years of observation

Based on the background and problem formulations that have been presented, the objectives in this study are to test and analyze:

1. To test and analyze whether Capital Intensity affects tax aggressiveness.
2. To test and analyze whether Leverage affects tax aggressiveness.
3. To test and analyze whether Profitability affects tax aggressiveness.
4. To test and analyze whether Company Size has an effect on tax aggressiveness.

## 2. Research Method

Capital Intensity can also be defined as the way companies manage funds in operating activities and funding assets to generate profits. The results of research Rahmawati & Jaeni (2022) show that capital intensity has a significant positive effect on tax aggressiveness. A company stands for nothing other than to earn as much profit as possible which is why the higher the company utilizes depreciation expense to carry out tax aggressiveness. Thus, the higher the company's capital intensity, the higher the tax avoidance efforts made by the company. Based on this explanation, the following hypothesis is obtained:

H1: Capital Intensity has a positive effect on Tax Aggressiveness.

Erawati & Anjar (2022) defines that companies that use a low effective tax rate value also have large debt. This causes the tax burden to be reduced from the interest expense owed by the company. Previous researchers who stated that leverage had a significant negative effect were research belonging to (Rohmansyah et al., 2021) and (Lubis & Identiti, 2022). Based on this description and explanation, the following hypothesis can be obtained:

H2: Leverage has a negative effect on Tax Aggressiveness.

Ayem & Afik (2019) in their research results show that ROA has a positive effect on tax aggressiveness. These results are in line with Andhari & I Made (2017) which shows that ROA also has a positive and significant effect on tax aggressiveness. Therefore, in this study the following hypothesis is formed:

H3: Profitability has a positive effect on Tax Aggressiveness

On the other hand, if the greater the total assets of the company, the greater the size of a

company as well. the amount of tax will also decrease, on the other hand, the greater the total assets of the company, the greater the size of a company. The more sales, the more money circulating in the company. And the greater the total assets, the greater the capital that the company will invest. So that the company will be more aggressive in its tax planning Yuliana & Djoko (2018) This hypothesis is supported by research (Erawati & Anjar, 2022), (Rohmansyah et al., 2021) and (Lubis & Identiti, 2022). based on the explanation above, the research hypothesis conclusion can be obtained as follows:

H4: Firm size has a positive effect on tax aggressiveness

His research was conducted on the Indonesia Stock Exchange for the 2017-2022 period through the official website of the Indonesia Stock Exchange, namely [www.idx.co.id](http://www.idx.co.id). The object of this research is capital intensity, leverage, profitability, firm size, and liquidity on tax aggressiveness in food and beverage sub-sector manufacturing companies listed on the Indonesia Stock Exchange for the period 2017-2022. The data used in this study are secondary data, namely data that is not directly obtained from the company, but obtained from other sources either through other people or from documents Sugiyono (2013) in research Ayem & Afik (2019). The population used in this study are all food and beverage sub-sector manufacturing companies listed on the Indonesia Stock Exchange for the period 2017-2022. This study uses multiple linear regression methods based on the following sampling criteria:

- a. The mining sector companies were listed on the IDX from 2014 to 2017.
- b. The financial statements presented are complete, covering the variables under study (i.e. capital intensity, leverage, profitability, firm size, and liquidity)
- c. Companies that do not sustain losses or earn profits during the study year.
- d. Companies that distribute dividends continuously during the study year

### 2.1 Equations

This study uses multiple linear regression analysis methods to determine the direction of the relationship between the independent variable and the dependent variable, whether each independent variable is positively or negatively related so that it can predict the value

of the dependent variable if the independent variable increases or decreases.

The following is the equation formula for multiple linear regression.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

Note:

Y : Tax Aggressiveness

A : Constant

$\beta$  : Regression Coefficient

X1 : Capital Intensity (CI)

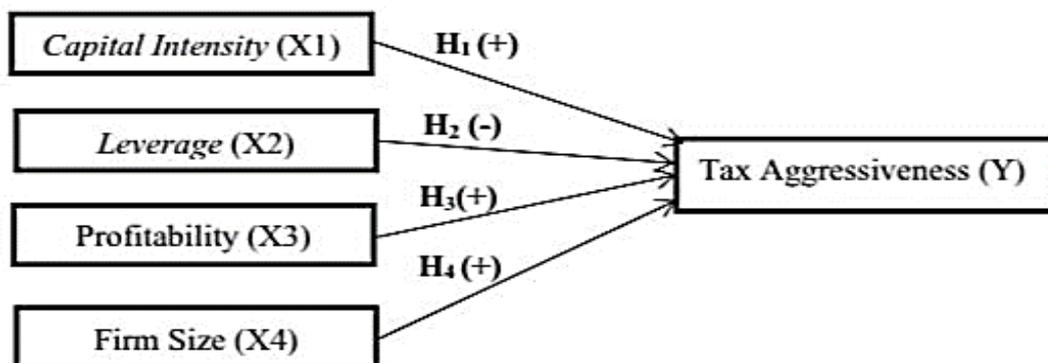
X2 : Leverage (DAR)

X3 : Profitability (ROA)

X4 : Firm Size (SIZE)

$\epsilon$  : Error Term (Residual)

## 2.2 Research Model



## 3. Results and Discussion

The research was conducted at the Food and Beverage Sub-Sector Manufacturing Companies listed on the Indonesia Stock Exchange for the

### 3.1 Descriptive Statics

Descriptive statistics have the aim of providing an overview of the distribution and behavior of the research sample data. In this study, descriptive statistics were carried out on capital intensity, leverage, profitability, firm size variables.

period 2017-2022, obtained a total of 8 Food and Beverage Sub-Sector Manufacturing companies. By using purposive sampling technique, 48 company data were obtained (8 x 6 years = 48) as research objects.

**Table 2 Descriptive Statics**

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
ETR	48	-,05	,32	,2254	,06802
CI	48	,00	7,54	,5495	1,06835
DAR	48	,10	6,24	,5300	,86426
ROA	48	,01	,53	,1155	,11139
SIZE	48	27,18	30,80	28,7506	,95020
DPR	48	,00	,62	,1045	,16241
CR	48	,73	9,95	2,8971	2,32037
Valid N (listwise)	48				

Source: Results Processing Data 2023

The results indicate that the company achieved an average ETR of 22,54%,

average CI of 54,94%, average DAR 53%, average ROA 11,55%, average SIZE 288 %, average CR 289710% over the study period.

### 3.2 Hypothesis test results

The data satisfies the classical assumption test. Based on the reliability test, it shows that

#### Statistic t-test result

the questionnaire is valid and reliable with an adjusted R-square of 31% to explain the phenomenon of factors that influence the variables of capital intensity, leverage, profitability and firm size on tax aggressiveness.

**Table 3 T-Statistic Test Result**

Model		Coefficients <sup>a</sup>						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-,130	,155		-,844	,404		
	CI	,012	,005	,364	2,524	,016	,873	1,146
	DAR	-,001	,006	-,036	-,242	,810	,808	1,237
	ROA	,017	,054	,053	,309	,759	,607	1,648
	SIZE	,012	,005	,335	2,305	,027	,860	1,163
	DPR	,052	,038	,244	1,361	,182	,566	1,768
	CR	,002	,002	,133	,870	,390	,772	1,296

a. Dependent Variable: ETR

Source: Results Processing Data 2023

$$Y = -0,130 + 0,012X_1 - 0,001X_2 + 0,017X_3 + 0,012X_4 + e$$

#### Notes:

Y : Tax Aggressiveness

A : Constant

$\beta$  : Regression Coefficient

X1 : Capital Intensity (CI)

X2 : Leverage (DAR)

X3 : Profitability (ROA)

X4 : Firm Size (SIZE)

$\epsilon$  : Error Term (Residual)

#### Hypothesis 1 Capital Intensity has a positive effect on Tax Aggressiveness.

Capital Intensity the acceptance of the first hypothesis that Capital Intensity has a positive affect on Tax Aggressiveness as indicate Sig. Value 0,016 < alpha 0,05 with a positive regression coefficient. Therefore H1 is accepted This result is consistent with he findings of research conducted by (Putu Ayu Seri Andhari & I Made Sukartha, 2017) that profitability has a positive effect on tax aggressiveness.

#### Hypothesis 2 Leverage has a negative effect on Tax Aggressiveness

The second test result. Leverage shows the extent to which the company depends on

creditors in financing the company's assets. Based on the test results, Leverage has no effect on tax aggressiveness, which can be seen from Sig. value of 0.810 > 0.05. Therefore, H2 is rejected. In contrast to the results of (Andhari & I Made, 2017), (Yuliana & Djoko, 2018), (Setyoningrum & Zulaikha, 2019), (Muliasari & Angga, 2020), (Junensie et al., 2020), (Zenuari & Muji, 2020), (Erawati & Anjar, 2022), (Rahmawati & Jaeni, 2022), and (Iffah & Amrizal, 2022) which state that Leverage has no effect on Tax Aggressiveness.

#### H3: Profitability has a positive effect on Tax Aggressiveness

The third test result. Sirait (2017) states that Return On Asset (ROA) is often called the earnings power ratio and provides an overview of the company's ability to generate profits from available assets or resources. Based on the test results obtained, profitabilitas does not have positive effect on tax aggressiveness. This result is supported by the Sig. 0.759 > 0.05. The direction in this study is consistent with the research conducted (Yuliana & Djoko, 2018), (Gunawan & Fatimah, 2019), (Zenuari & Muji, 2020), (Karunia et al., 2021), (Rahayu & Andi, 2021), (Erawati & Anjar, 2022) and (Iffah &

Amrizal, 2022) which state that Leverage has no effect on Tax Aggressiveness.

**H4: Firm size has a positive effect on tax aggressiveness**

The The fourth test result. Firm Size is the size of the company which is seen based on the total assets owned by the company in carrying out company operations. Based on the test **Statistic F-test result**

results obtained, has a affect tax aggressiveness as supported by the Sig. value of 0.027 <alpha 0.05 with a positive regression. The results of this study are in line with the (Erawati & ANJAR, 2022), (Rohmansyah et al., 2021) and (Lubis & Identiti, 2022) that Firm size has a positive affect on Tax Aggressiveness.

**Table 4 Statistic F-test result**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,017	6	,003	2,851	,022 <sup>b</sup>
	Residual	,038	38	,001		
	Total	,055	44			

a. Dependent Variable: ETR  
b. Predictors: (Constant), CR, DPR, CI, SIZE, DAR, ROA

Source: Results Processing Data 2023

Based on the table above, the F-statistic probability obtained is 0.022 less than sig (0.05). This indicates that the multiple linear regression model is accepted or this regression model shows a good level so that it can be used to predict or it can be said that the independent variables have a joint effect (simultaneously) on the dependent variable.

**4. Conclusion**

This study aims to test and prove empirically the effect of Capital Intensity, Leverage, Profitability, Company Size, Dividend Policy, Liquidity on Tax Aggressiveness in Food and Beverage companies listed on the Indonesia Stock Exchange in 2017-2022. Based on company characteristics, research obtained a sample of 8 companies and 48 data using multiple linear regression analysis. Based on the results of data analysis that has been done using SPSS, it can be concluded that:

- a. Capital Intensity has a positive and significant effect on Tax Aggressiveness.
- b. Leverage has no effect on Tax Aggressiveness.
- c. Profitability has no effect on Tax Aggressiveness.
- d. Company size has a positive and significant effect on tax aggressiveness.
- e. Liquidity has no effect on Tax Aggressiveness. Clearly state advantages of

result of the study, limitations and possible applications.

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