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The Moderation Role of Tax Rate Reduction and Firm Size on the Effects of Tax Aggressiveness on Company Value

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ABSTRACT: This study aims to examine the impacts of reducing tax rates and firm size on tax aggressiveness in regards to the company value in Indonesia. This study used 302 samples of companies with 1,118 observation points within the period of 2017 - 2021. The proxy measurement of tax aggressiveness is with Effective Tax Rate and the company value using Tobins'Q. The research analysis was carried out using multiple regression models of panel data employing fixed effects as the best research model. The results showed that there was no significant effect of aggressive tax on firm value. This study also found that a decrease in tax rates did not affect the relationship between tax aggressiveness and firm value, but firm size did impact on both tax aggressiveness and firm value.

Keywords: Tax Aggressiveness, Firm Value, Tax Rate Reduction, Firm Size

INTRODUCTION

The efficiency of cash outflow for tax payments can be utilized by companies as a capital to increase the productivity and the performance of companies as well as the provision for the shareholders. If this policy can be implemented, a company value will increase considerably. Managerial actions are designed in such a way and indirectly focus on minimizing tax liabilities from the company (Marfiana et al., 2021). Basically, an increase in company value is achieved if there is an alignment of goals between shareholders and company management (Ramajo et al., 2020; Wang et al., 2018). The interests of shareholders are on the value of the company and the distribution of profit after tax, whereas the interests of managers as the representatives of the company are compensation such as salaries and other financial and non-financial benefits (Hantina, 2014).

Tax aggressiveness is a measure aimed at reducing tax exposure through legitimate means by not violating the rules through tax planning or by manipulating taxes or tax evasion. (Frank et al., 2009; Mashuri & Ermaya, 2019). These policies are made to minimize the amount of tax, known as Tax aggressiveness (Drucker et al., 2020; Jia et al., 2020; Richardson & Taylor, 2015). The previous researches on tax aggressiveness and corporate value indicated inconsistent output.

(Abdelfattaha & Aboud, 2020; Chen et al., 2014; Mangoting et al., 2019) found that tax planning adopted by companies has a negative impact on company value. (Sandy & Lukviarman, 2015) suggest that tax aggressiveness has no influence on company value. Moreover, (Mulyani et al., 2018), added that long-term tax avoidance has a positive effect on company value.

Those who put forward the political cost hypothesis argue that larger scale companies with their assets and property are the victims of government regulations in which the provision of wealth is controlled. Taxes, however, are one of several components of burdensome political costs. The concept of political costs emphasizes that the bigger effective tax rates contributed by large companies, the more aggressive the government will be in accessing the company resources, compared to small scale businesses (Hantina, 2014).

There are a number of tax aggressiveness practices in Indonesia carried out by national and/or multinational companies that have been followed up by DGT. Some of these companies include; PT. Indosat that was indicated to have manipulated the notification letters in 2002 – 2003; PT. Adaro energy in the period 2009 to 2017 which allegedly practiced tax aggressiveness through a transfer pricing scheme to affiliates located in Singapore (Detikfinance, 2019); as well as several other companies such as Bumi Resources, Asian Agriculture, and the list is exhaustive. Clearly, it has been proven that there is a relationship between tax aggressiveness and companies with considerable assets (firm size). Nevertheless, the facts are not in line with the concept proposed by both Watts & Zimmerman (1986) and (Kurniawan 2015) in their former researches on company size and tax aggressiveness. The results of the study indicated that there is a negative effect between the size of the company and the tax aggressiveness.

The Covid-19 pandemic that hit Indonesia in early 2020 had a severe impact on domestic economic conditions. The Ministry of Finance through the Fiscal Policy Agency and DGT responded by lowering the corporate income tax rate to 22% from 25%. Several studies related to reducing tax rates were conducted by Guenther (1994) who found that the corporate profit management was carried out in response to the 1986 tax reform in the United States. In addition, Guenther, Yin & Cheng (2004) conducted studies related to profit management and tariff reductions in the United States, the results of the study suggested that entities with profits are more interested in managing profits than entities that experience a loss. Similarly, a study in Indonesia conducted by Wijaya & Martani (2011) revealed that there is a tendency for aggressive profit management in companies that yield profits compared to companies with a considerable loss by delaying the recognition of income to the periods when tax rates were lower.

The effect of decreasing tax rates and company size on the relationship between tax aggressiveness and corporate value is an interesting phenomenon to study. Due to the decreasing tax rates, observations can be conducted by employing the listed public entities from 2017 to 2021 to determine the impact of this phenomenon. This research is a development of a study by Desai &; Dharmapala (2009) which examined the relationship between tax aggressiveness and corporate value in America, notifying that tax aggressiveness did not have any influence on company value.

Previous domestic research relevant to the relationship between tax aggressiveness and changes in tax rates in Indonesia was conducted by (Frista, 2018) in Indonesia-based public companies for the period 2007 -2010 stating that progressive changes in tax rates to fixed rates had an influence on decreasing tax aggressiveness. Furthermore, (Kurniawan, 2015) added that there was a negative influence on company size and tax aggressiveness. Unlike the two previous studies, there are different moderation variables, namely the reduction in tax rates and the size of the companies to be included.

Tax Aggressiveness

According to (Lietz, 2014) the measurement of tax avoidance generally divided into 3: tax sheltering; tax evasion; and tax aggressiveness. According to Frank (2009), tax planning using methods that are classified legally through tax avoidance or illegally through tax evasion is a form of tax aggressiveness aimed at engineering corporate taxable income. The benefits of tax aggressiveness by making tax cost efficiency will have an impact on increasing the profit results obtained by shareholders which can be used to finance investments from companies with an impact on increasing company profits in the future (Dewi & Rahmianingsih, 2020).

Negative compensation from tax aggressiveness is the potential for sanctions through fines or interest from the viscus. This step can also affect in the decrease of the company credibility which indirectly impacts the value of the company through a decrease in the company's stock price as a consequence of decreasing trust from shareholders and potential investors after spotting the actions taken by the company. Tax management actions must be measured because they have benefits and consequences. The consequences are sanctions/fines imposed if the tax management carried out by the company violates the limitations of applicable laws or regulations. In fact, the value of sanctions/fines imposed may be greater than the savings previously made.

Hanlon & Heitzman (2010) argue that tax avoidance can not generally be defined which is then mutually agreed upon by researchers, so the definition of tax avoidance is still adjusted to the scope of research conducted by each researcher. Hence, there are several proxies used to measure tax avoidance in Hanlon & Heitzman (2010). GAAP ETR proxies for tax aggressiveness measurement, in accordance to the majority of previous studies conducted by Taylor & Richardson (2012); Huseynov & Klamm (2012); Dyreng et al. (2008); Graham & Tucker (2006); Rego (2003); Gupta & Newberry (1996).

Agency Theory

The definition of agency relationship presented by Jensen & Meckling (1976) is a contract between owners and managers in managing the company resources and in determining the best operating strategies and decisions for the company when carrying out its activities. Managers get full and controlled access to all information in the company, which triggers the emergence of information asymmetry between managers and company owners who are not directly involved in the company's operational activities.

According to Desai & Dharmapala (2009), the existence of information asymmetry can lead to agency problems related to corporate tax aggressiveness as it might facilitate managers to ignore shareholder interests and then act on personal interests. According to (Hantina, 2014), the interests of company owners are on the value of the company and the distribution of profit after tax, while the interests of managers as agents are on the compensation, be it the salaries or other financial and non-financial benefits. This can incur agency costs due to the differences in interests that is ultimately burdensome for the company owners (Chen et al., 2014).

Firm Value

According to Weston & Thomas (1996), the fair value of a company can be described through investor perception of the issuer concerned and can be defined as the value of the company. Weston & Copeland (2010) argue that the valuation ratio or market ratio can be used as a measurement of company value, which is the most comprehensive measure of performance for a company.

There are several factors that can affect the value of a company, one of which is leverage; Sari (2005) found that the leverage ratio is a factor that affects the value of the company. In the taxation context, the decision to use leverage can increase the value of the company since the concept of tax is a component in reducing taxable income. However, Darsono (2006) stated that there is an increased risk of companies not being able to pay their obligations from a greater leverage, which will affect the decline in company value.

The second factor is the firm size. Sujoko & Soebiantoro (2007) argue, a company value is positively influenced by a company size. There are benefits to the ease of obtaining internal or external funding, as a result of the increasing size of a company. Companies with large scale benefit from being able to obtain economies of small scale (Mule et al., 2015; Osazuwa & Che-Ahmad, 2016).

Profitability is the next factor affecting the value of the company. Home & Wachowicz (2005) stated that the bigger the impact on the company's profitability ratio is, the higher the company's value will be, and this stimulates investors' interest in the company fundings. (Agustia et al., 2019; Murakami & Otsuka, 2020; Suwardika & Mustanda, 2017).

The Firm Size

Brigham &; Houston (2010) stated that a firm size can be grouped based on various measurements, these include: total assets, total revenue, and total equity to determine the scale of the company. An increase in company size is achieved through an increase in company performance that is directly proportional to sales or revenues contributing to the company profit and adding equity through retained earnings (Barly, 2018; Dirman, 2020; Seclen-Luna et al., 2021; Suryana & Rahayu, 2018).

(Watts & Zimmerman, 1986) stated that one of the major drives in managing corporate financial profits through Positive Accounting Theory is the size of the company in a relation to political cost & political power. In particular, under political cost theory, larger, more affluent firms are

victims of greater regulatory action by governments through wealth transfer because they have higher visibility (Watts & Zimmerman, 1986). An alternative view through political power theory is that they can do tax planning, and can determine activities with the objective of achieving optimal cost savings through taxes because they have substantial resources to manipulate the political process (Siegfried, 1972).

Tax Aggressiveness and Firm Value

The transfer of wealth by companies to the state through the payment of income tax is actually a cost for the company (Sari, 2010), so that the company will optimize the tax paid in order to maximize the company's profit, and this has an impact on optimal returns to shareholders. The tendency of company management to carry out tax aggressiveness for efficiency will be favored by company owners (Chen et al., 2014), but (Kamila, 2017) stated that tax aggressiveness carried out by management can damage the company's reputation as perceived by both investors and creditors.

Additionally, previous observations found that corporate value is negatively affected by tax aggressiveness. Desai & Dharmapala (2009) state that the value of the company is not influenced by tax aggressiveness. Meanwhile, (Chasbiandani, 2012), emphasized that the company value is positively affected by long-term tax avoidance. Based on these inconsistent results, the hypothesis the researchers believe is that corporate tax aggressiveness, measured through the ETR level as a proxy in testing, will affect the value of the company. The hypotheses is seen as follows:

H_1: Tax aggressiveness affects the company value of public companies in Indonesia.

Tax Aggressiveness, Tax Rate Reduction and Firm Value

Guenther (1994) revealed that corporate profit management actions are in response to the 1986 tax reform in the United States. Yin & Cheng (2004) also conducted studies related to profit management and tariff reductions in the United States, and the results of the observations indicate that profitable companies are more interested in implementing profit management than companies with a considerable loss. Another research related to tariff changes in Indonesia conducted by Wijaya & Martani (2011) concluded that there is a growing trend in which profit management in companies generate more profit than companies with a considerable money lost by delaying recognition of company earnings to suit a lower tariff period.

Furthermore, a research by (Frista: 2018) showed a shift in the flat tax rate from a progressive to a flat tax rate in 2009 affected the decline in corporate tax aggressiveness. Therefore, it can be concluded that aggressiveness in financial reporting or profit management will be greater when there has been a change in tax rates. In contrast to the phenomenon of profit management, with the changes in the tax rates, tax aggressiveness proves to be smaller, because management has benefited from the changes in the tax obligations and should consider the impact of tax aggressiveness that may arise in the next periods. With the description given, the next hypotheses is:

H_2: The reduction in tax rates affects the relationship between tax aggressiveness

and company value of public companies in Indonesia.

Tax Aggressiveness, Firm Size and Firm Value

Studies in America revealed the contradictory results on the relationship between ETR and the company size. A positive relationship between ETR and firm size was found by Zimmerman (1983), while Porcano (1986) highlighted a negative relationship between the two variables. Ultimately, empirical evidence suggests that such inconsistent findings gave an effect on the firm size being a very specific sample and may not always emerge over time in the long history of the company (Gupta & Newberry, 1997).

The conclusion drawn from the results is that there is a relationship between the size of the company and the effective rate of corporate tax. Furthermore, according to Sujoko & Soebiantoro (2007), the value of the company is influenced by the size of the company. Companies will find it easy to obtain funding sources both from internal and external in line with its size. Large-scale companies also benefit from scaled economy. Hence, the following hypotheses is:

H_3: Firm size affects the relationship between tax aggressiveness and company value of public companies in Indonesia.

From the Hypothesis made, this is the model of the research framework:

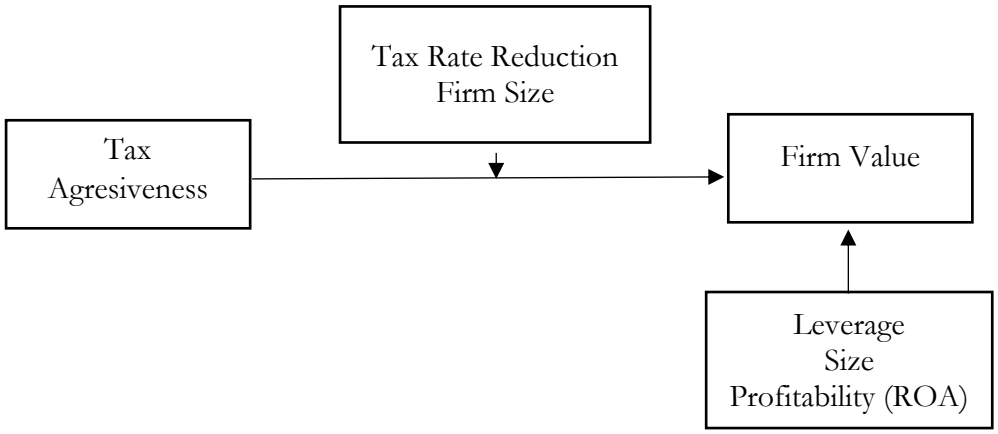

Figure 1. Research Framework
Source : data proceed

METHODS

In this study, Tobin's Q ratio is a proxy used to measure company value, as implemented by Desai & Dharmapala (2009). Tobin's Q is one of the measurements tested in various top management situations that is a variable measure of company performance from an investment perspective (Liang & Ye, 2021; Sun et al., 2014). Because the impact of tax aggressiveness on the value of new companies can be seen in the next period, this study follows the provisions of a study conducted by (Chen et al., 2014) where the period used is t = t + 1. For the measurement of tax aggressiveness, researchers use measurement through ETR. which become the majority of

previous researches conducted by Gupta & Newberry (1997); Rego (2003); Graham & Tucker (2006); Dyreng et al. (2008); Huseynov & Klamm (2012); and Richardson & Taylor (2012) by dividing the total tax burden by accounting pretax income (Ghozali, 2018).

This quantitative research employs secondary data acquired from a variety of sources. (Sugiyono, 2017) mentioned the use of purposive sampling techniques in his research sample through the selection of public companies listed on the Indonesia Stock Exchange (IDX) from 2017 to 2021. It is such conducted to see the differences due to tariff reductions in 2020. The final size of the research sample was 302 companies with 1,118 observation points due to the application of several relevant criteria from a total of 848 companies and 4240 years of observation. This final sample size represents 26.4% of the total public company data on the Indonesia Stock Exchange as shown in table below.

Table 1. Final Sample Selection

Description	Main Board		Development Board		Acceleration Board		Total		%
	Number of Companies	Year of Observation	Number of Companies	Year of Observation	Number of Companies	Year of Observation	Total	Year of Observation	
Initial Sample	364	1820	453	2265	31	155	848	4240	**100%**
Excluded industries									
Finance and Insurance	-55	-275	-51	-255	0	0	-106	-530	**-12,5%**
Energy and Mining	-45	-225	-49	-245	0	0	-94	-470	**-11,1%**
Property, Construction and Real Estate	-49	-245	-61	-305	-3	-15	-113	-565	**-13,3%**
Cruise and Aviation	-3	-15	-3	-15	0	0	-6	-30	**-0,7%**
Companies not listed since the initial period of the study	-55	-275	-71	-355	-28	-140	-154	-770	**-18,2%**
Companies that lost money during the study period	-11	-55	-23	-115	0	0	-34	-170	**-4,0%**
Missing Value	-2	-115	-37	-472	0	0	-39	-587	**-13,8%**
Final Sample Size	**144**	**615**	**158**	**503**	**0**	**0**	**302**	**1118**	**26,4%**

Source : data processing

This study used panel data regression analysis techniques with Eviews 12 econometric software. The data analysis of this study includes descriptive statistical tests (mean, median, maximum, minimum, and standard deviation), analysis and selection of regression panel data using Chow and Hausman tests. The next step is to carry out classical assumption tests, which include multicollinearity tests and heteroscedasticity tests, followed by hypothesis testing comprising simultaneous significance tests (F test), partial significance tests (T tests), and coefficients of determination (adjusted R-squared) at the level significance 0.01 (1%), 0.05 (5%) and 0.1 (10%).

RESULTS AND DISCUSSIONS

Descriptive Statistics

Using the minimum value, maximum value, average (mean), and standard deviation for each independent variable and the dependent variable, descriptive statistical analysis is utilized to provide an overview of the distribution and behavior of the research sample data. The descriptive test results are shown in the table below:

Table 1. Statistical Analysis Test Results

Variable	N	Minimum	Maximum	Mean	Median	Std. Deviation
$Q_{i,t+1}$	1118	0,1834	4,8732	1,6213	1,1620	1,1500
$ETR_{i,t}$	1118	0,0010	0,8183	0,2985	0,2535	0,1726
$LEV_{i,t}$	1118	0,0000	0,9454	0,2148	0,2006	0,1846
$ROA_{i,t}$	1118	0,0001	0,1967	0,0580	0,0435	0,0534
$SIZE_{i,t}$	1118	3,0373	3,1820	13,6313	14,1615	19,7217

Source : data proceed

The observation period after the tax rate reduction for 2020 and 2021 was 37.3% (417 companies), whereas the observation period before the tax rate reduction for 2017 to 2019 was 62.7% (701 companies).

From the table, it can be seen that companies listed on the stock exchange during 2017 to 2021 have carried out company management properly, thus, a higher company market value is above their book value. The maximum value in the research period of 4.8732 is issuers engaged in the information technology sector, and the minimum value of 0.1834 is issuers involved in the automotive sector. Both are companies listed on the development board.

Companies tend to make positive corrections, both temporary and permanent, from commercial pre-tax profits in accounting for taxable profits, resulting in a value increase of corporate tax seen at an average value of 29.85%. The maximum value in the research period is 0.8183 for fiscal year of 2020 which is the main board issuer engaged in the hospital administration business, and the minimum value of 0.010 is the development board issuer engaged in health service providers.

The average use of debt in the sample of asset financing was 0.2148. The main board issuers in the food and beverage industry are issuers with the maximum value obtained in the research period of 0.9454. This shows that the use of debt for asset financing is considerably high in Indonesia-based public companies .

The average profitability value based on the observation of listed companies is 0.0580. The maximum value in the research period of 0.1967 is issuers engaged in the pharmaceutical industry, while the minimum value of 0.0001 is issuers engaged in telecommunications infrastructure. Both issuers are development board issuers.

There is a movement in the mean value of the main variables of the study every year starting from 2017 to 2021, as shown in table 2:

Table 2. Mean Movement of Main Variables

Variable	Years					
	2017	**2018**	**2019**	**2020**	**2021**	**Total**
Qi,t+1	1,609252	1,586791	1,569662	1,678343	1,675246	1,621300
ETRi,t	0,292148	0,296939	0,321531	0,326944	0,259696	0,298500

Source : data processing

Cumulatively, there was an average increase in the Q variable even though it had fallen in the 2018-2019 period and then rose again up to the final period of the study in 2021. For the ETR variable, there was a significant increase in the 2019 period of 0.0245 even though the time of the issuance of the regulation on reducing corporate income tax rates was in 2020, there was no significant change in the average value of the research sample. The following year after the rate reduction in 2021, there was a significant decrease in the average value of the ETR and cumulatively in the study period there has been a decrease in the ETR rate. Based on the movement of the mean value of ETR, it can be indicated that there was an increase in aggressiveness by the company during the observation period of the study.

Panel Data Regression Model Selection

Chow Test

In the Chow test of the three models that have been carried out, both have a prob value. Cross-Section F and Ci-Square which is smaller than 0.05, from these results, the hypothesis is rejected. So it was concluded that the Fixed Effect model was the best and the data testing continued by implementing Hausman Test.

Hausman Test

Based on the Hausman test of the three models tested, the p value of the model is below 0.05, meaning that the Fixed Effect Model is the best model so the Lagrange Multiplier (LM) test is not implemented.

Best Panel Data Regression Model

The following table summarizes the results of the panel data regression model on selection test performed from all three models.

Table 3. Panel Data Approach Testing

Description	Test	Probability F/Chi^2	Result
PLS vs FE	Chow	0,0000	FE
FE vs RE	Hausman	0,0000	FE

Source : data processing

The results generated in the study emphasized that the best model for all equations is the Fixed Effect Model.

Classic assumption test

Multicolinearity Test

As Pearson correlation testing that has been done, there is no multicollinearity problem where the correlation coefficient of each independent variable does not exceed a value of 0.8.

Heteroscedasticity Test

Based on the regression of residual absolute values with independent variables or the Glejser test, there is a heteroscedasticity problem in the data for the SIZE variable before the data transformation is performed. After the transformation, it can be seen that the heteroscedasticity problem has been resolved as evidenced by a p-value of > 5%.

Panel Data Regression Analysis

Tax Aggressiveness and Firm Value

The findings of the panel data regression analysis test selected the equation model between variables, and they are formulated as follows:

$$Q = 8{,}2543 + 0{,}0635ETR + 0{,}3062LEV - 2{,}6421SIZE + 1{,}4095ROA + \varepsilon$$

The measurement of the increase or decrease in ETR is inversely proportional to tax aggressiveness, the higher the tax aggressiveness, the lower the ETR, and vice versa, the lower the tax aggressiveness, the higher the ETR rate. Based on the regression results, it is known that the coefficient between ETR and Q is positive, so tax aggressiveness negatively affects the value of the company.

The F-stat Test result shows a value of 18.03 and a probability of 0.0000%. Based on these results, the regression model can describe the simultaneous influence of the independent variable and control on the dependent variable. The results also suggest the t-stat value be used to test research hypotheses. The adjusted R2 value of the regression model is 82.31%. From the adjusted value of R2 it can be said that about 82.32% of the variation of the variable Q can be explained by the ETR variable and the control variable (LEV, ROA, SIZE) in the model simultaneously. 17.69% were not explained by research variables but other variables are not included in the model, as shown in table below:

Table 3. Regression Output

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.254268	1.685069	4.898474	0.0000
ETR	0.063559	0.133030	0.477780	0.6329
LEV	0.306212	0.235427	1.300663	0.1937
ROA	1.409470	0.563032	2.503357	0.0125
LOG(SIZE)	-2.642139	0.653494	-4.043096	0.0001
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.871393	Mean dependent var		1.621385
Adjusted R-squared	0.823086	S.D. dependent var		1.150022
S.E. of regression	0.483712	Akaike info criterion		1.612956
Sum squared resid	189.9895	Schwarz criterion		2.986752
Log likelihood	-595.6421	Hannan-Quinn criter.		2.132259
F-statistic	18.03872	Durbin-Watson stat		1.778201
Prob(F-statistic)	0.000000			

Source : data processing

The t-stat test showed a positive but not significant ETR regression coefficient (0.3165). The findings indicate that tax aggressiveness has a negative effect on company value but is not considered significant. Therefore hypothesis 1 is not accepted. This result is consistent with the study by Desai & Dharmapala (2009) which stated that tax aggressiveness does not affect the value of the company.

All control variables also affect the dependent variable of company value. The LEV variable exerts a positive influence on the variable value of the company. The findings indicate that public companies are able to manage their liabilities properly in which they use it to buy assets or to finance a productive investment which is expected to have a positive influence on increasing profitability , thus it ultimately affects the increase in company value.

The relationship of the control variables of ROA and the company value is both positive and significant. ROA is the most important ratio among other profitability ratios and is a technique commonly used to measure the effectiveness of a company's overall operations. ROA can measure management efficiency in using the assets, where a company has to earn income and profit.

Size has a negative influence on company value, thus, the findings do not match the initial prediction of the study stating that the size of the company will be directly proportional to the value of the company. This result indicates a negative response from investors or potential investors to issuers with a significant size as seen from the total amount of assets. (Jensen &; Meckling, 1976) implied that investors do not have the need to supervise operational activities and strategies by management if the companies are too big, as more serious conflicts triggered by the differences in interests between the managers and the company owners may occur. In addition, if the company has a relatively significant amount of total assets, there will be a

flexibility in the management's utilizing the assets when the situation permits, consequently such conduct will ultimately reduce the value of the company.

Tax Aggressiveness, Tax Rate Reduction and Firm Value

Based on the findings of the panel data regression analysis test, the equation model between variables can be formed as follows:

Model 2 : $\mathbf{Q = 8{,}5103 + 0{,}0674ETR + 0{,}0182TRC\_D + 0{,}0020(ETR*TRC\_D) + 0{,}3116LEV - 2{,}745SIZE + 1{,}4339ROA + \varepsilon}$

By including the dummy variables of tax rate reduction (TRC) and its interaction (ETR*TRC), the F-stat Test results show a value of 17.88 and a probability of 0.0000%. Based on these results, the regression model can describe the simultaneous influence of the independent variable and control on the dependent variable. The results also suggest the t-stat value to test a research hypotheses. The adjusted R2 value of the regression model was 82.27%. From the adjusted value of R2 it can be concluded that about 82.27% of the variation of the variable Q can be explained by the ETR variable and the control variable (LEV, ROA, SIZE) in the model simultaneously. The remaining 17.73% was not explained by the research variables but other variables that did not fit the model as shown in table below:

Table 4. Regression Output

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.510323	1.760084	4.835181	0.0000
ETR	0.067439	0.133803	0.504013	0.6144
TRC	0.018183	0.034411	0.528413	0.5974
ETR_TRC	-0.002000	0.011971	-0.167049	0.8674
LEV	0.311551	0.235905	1.320664	0.1870
ROA	1.433914	0.565507	2.535625	0.0114
LOG(SIZE)	-2.745529	0.684798	-4.009255	0.0001
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.871438	Mean dependent var		1.621385
Adjusted R-squared	0.822712	S.D. dependent var		1.150022
S.E. of regression	0.484224	Akaike info criterion		1.616182
Sum squared resid	189.9227	Schwarz criterion		2.998957
Log likelihood	-595.4455	Hannan-Quinn criter.		2.138880
F-statistic	17.88428	Durbin-Watson stat		1.774235
Prob(F-statistic)	0.000000			

Source : data processing

A number of previous studies outside Indonesia did not specifically measure the relationship between the changes and the decrease in tax rates and tax aggressiveness, but Guenther (1994) found that there were companies having carried out profit management in response to the 1986 tax reform in the United States. After 10 years, Yin & Cheng (2004) also conducted tests in the

United States related to profit management and tariff reduction. The results of the study found that entities with profits are more interested in carrying out profit management than entities with a considerable loss.

The results of the regression model through the probability results of T-Stat found that the decrease in tax rates had a significant effect (0.3072) on the relationship between tax aggressiveness and company value, therefore the second hypothesis was rejected. The research findings are not in line with the previous studies that examined the effect of tax rate changes on the relationship between tax aggressiveness and financial statement aggressiveness conducted by Frista (2018), stating that a changing in the tax rate to a fixed rate from the previous progressive rate in 2009 affected the decrease in corporate tax aggressiveness.

In moderation, the testing of tax rate reduction does not alter the consistency of the contribution of control variables that affect company value, namely LEV, profitability level through ROA and SIZE. Both ROA and SIZE variables remain a significant positive influence and SIZE contributes through a significant negative influence on the value of the company.

Tax Aggressiveness, Firm Size and Firm Value

Based on the findings of the panel data regression analysis test, the equation model between variables can be formed as follows:

Model 3 : $\mathbf{Q = \alpha + 0{,}7668ETR - 0{,}1366SIZE\_D - 0{,}2027(ETR*SIZE\_D) + 0{,}1474LEV + 0{,}0171SIZE + 9{,}8823ROA + \varepsilon}$

In testing this typical hypothesis, all company samples are grouped into two categories based on size variables; If the average value of the company during the observation period is above the median value, the company is categorized as a large company. If a company has an average value over the observation period that is lower than the median value, it is categorized as a smaller company.

By including dummy variable interactions (ETR*SIZE_D). The F-stat Test results show a value of 42.66 and a probability of 0.0000%. Based on these results, the regression model can describe the simultaneous influence of the independent variable and control on the dependent variable. The results also show that the t-stat value can be used to test the research hypothesis, and the adjusted R2 value of the regression model is 18.29%. From the adjusted value of R2 it can be concluded that about 18.29% of the variation of the variable Q can be explained by the ETR variable and the control variable (LEV, ROA, SIZE) in the model simultaneously. 81.71% was not explained by research variables but other variables that did not fit the model as shown in table below:

Table 5. Regression Output

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.766758	0.189435	4.047610	0.0001
ETR	0.380626	0.249169	1.527581	0.1269
SIZE_D_MEDIAN	-0.136557	0.140342	-0.973029	0.3308
ETR_SIZE_D_MEDIAN	-0.202744	0.366728	-0.552846	0.5805
LEV	0.147449	0.184248	0.800277	0.4237
ROA	9.882327	0.688926	14.34453	0.0000
SIZE	0.017099	0.013631	1.254398	0.2100
Effects Specification				
Period fixed (dummy variables)				
R-squared	0.188492	Mean dependent var		1.621385
Adjusted R-squared	0.181161	S.D. dependent var		1.150022
S.E. of regression	1.040651	Akaike info criterion		2.927361
Sum squared resid	1198.831	Schwarz criterion		2.976746
Log likelihood	-1625.395	Hannan-Quinn criter.		2.946029
F-statistic	25.71267	Durbin-Watson stat		0.425156
Prob(F-statistic)	0.000000			

Source : data proceed

The results of the regression model through probability t-stat state that the size of the company has a significant positive influence with the level of significance α = 10% (after divided into two; two tailed test) on the variables ETR and Q. It can be concluded that there is an influence of tax aggressiveness on the value of the company due to moderation of the size of the company, therefore the third hypothesis is accepted. The interaction of firm size and ETR exerts a different influence on the contribution of the LEV and SIZE control variables, which weakens the relationship with the dependent variable, while the ROA variable remains to have a positive influence on the firm value.

There is no evidence of a study that specifically examined the effect of tax aggressiveness and company value moderated by company size found, however, in 2022, a research conducted by (Labunets.E. & I.A, 2022), stated that there was a significant negative influence on the relationship between company size and tax aggressiveness in companies engaged in forestry in Russia. The findings are considered inconsistent with the output by Lanis and Richardson (2007), who stated that there is a negative influence between ETR and company size. In other words, it can be said that there is a positive relationship between company size and tax aggressiveness in public companies at the time of tax reform in Australia.

In Indonesia, a study conducted by Kurniawan (2015) examined the relationship between the company size and the tax aggressiveness in 71 entities within the period of 3 years of observation (2012-2014). The results of the study revealed that there is a negative influence of company size on tax aggressiveness. In line with the results of previous studies related to company size and tax aggressiveness, a moderation of company size can affect the relationship between tax aggressiveness and company value.

Additional Testing of Tax Aggressiveness, Firm Size and Firm Value

To get more convincing results for researchers in making decisions, this study conducted additional testing through regression based on the results of modifications to moderation variables SIZE_D by selecting fifty (50) largest companies to be grouped into large companies, and the rest categorized into smaller companies. This grouping of the 50 largest companies is based on previous research conducted by Zimmerman (1983) which has examined the relationship between taxes and company size in America. From a total of 1118 years of observation, 197 years of large companies (17.62%) and 921 years of other companies (82.38%) were obtained. The output of the regression is shown in the table below:

Table 5. Regression Output

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.986238	0.159848	6.169860	0.0000
ETR	0.390530	0.216489	1.803931	0.0715
SIZE_D_50	0.159555	0.169495	0.941355	0.3467
ETR_SIZE_D_50	-0.507297	0.490122	-1.035043	0.3009
LEV	0.071815	0.181988	0.394613	0.6932
ROA	9.737883	0.686751	14.17964	0.0000
SIZE	-0.004657	0.010054	-0.463168	0.6433
Effects Specification				
Period fixed (dummy variables)				
R-squared	0.185397	Mean dependent var		1.621385
Adjusted R-squared	0.178039	S.D. dependent var		1.150022
S.E. of regression	1.042634	Akaike info criterion		2.931167
Sum squared resid	1203.403	Schwarz criterion		2.980552
Log likelihood	-1627.522	Hannan-Quinn criter.		2.949835
F-statistic	25.19448	Durbin-Watson stat		0.424835
Prob(F-statistic)	0.000000			

Source : data processing

Based on the results of regression through t-stat probability, there are similarities with the results of the previous study that utilize the median value as a grouping of company size, where moderation of the 50 largest companies still has a significant positive influence between ETR and Q value with a higher level of significance with $\alpha = 5\%$ (after divided into two; two tailed test). Because ETR proxies are the opposite of tax aggressiveness, it can be concluded that there is a negative influence between tax aggressiveness and company value.

The two outputs of the company size moderation test prove that the sensitivity of the company size gives a difference in the effect of tax aggressiveness on company value. In conducting a test with 50 largest companies, the tax reduction practices carried out by company management have a more negative influence on company value , compared to other companies.

Consistent with previous tests, the contribution of ROA as the main control variable always exerts a significant influence on the value of the company. The interaction of company size in the model that acts as a moderation variable affects the contribution of LEV and SIZE control variables that become weaker, to the value of the company. Referring to the third and additional tests, the results obtained can state that the first hypothesis in this study is accepted, and tax aggressiveness has a negative effect on company value, thus it is consistent with the previous study by Chen et al. (2014), Wahab & Holland. (2012), and Hanlon & Slemrod (2009) from which tax aggressiveness is considered to have a negative effect on company value.

CONCLUSION

There is a negative but not significant effect of tax aggressiveness proxied through ETR with company value in public companies in Indonesia within the 2017-2021 period. This is due to the potential endogeneity of ETR proxies, where companies can determine the amount of ETR presented in the financial statements for certain reasons. The reduction in corporate income tax rates in 2020 as the government's response in handling economic stability due to the Covid-19 pandemic did not make a difference in the effect of tax aggressiveness on company value. It is possible that there are other phenomena in the research period such as Covid-19 as exogenous variables outside the study that will better explain changes in company value each year. Grouping company size exerts a significant influence with the rate of $\alpha = 10\%$ and $\alpha = 5\%$ in the 50 largest companies, regarding the relationship between tax aggressiveness and company value. This negative influence is indirectly in line with the concept of political cost where the size of the company is in line with the amount of political costs (including taxes) incurred by the company.

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