



## Factors That Affect The Aggressiveness of Taxes on Companies in The Basic And Chemical Industrial Sectors

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### ABSTRACT

*Companies operating in the basic and chemical industries will be examined for their tax aggressiveness in this investigation. There are three aspects to consider: institutional ownership, executive salaries, and the quality of presidents and directors. For 2020–2023, 36 different companies have shares listed on the Indonesia Stock Exchange (IDX). This is known as purposeful sampling. Multiple linear regression tests are used as an analysis tool. The study found that tax aggression was positively influenced by the nature of presidents and directors, negatively influenced by executive salaries, and not affected by institutional ownership. According to the study, other related characteristics should be included, and the study population should be expanded.*

## INTRODUCTION

Individuals and business entities are obliged to pay taxes to the state in accordance with Law Number 16 of 2009. Instead of being given directly to taxpayers, the money from these taxpayers is used to improve the standard of living of citizens and the country as a whole. According to Mardiasmo (2019), taxation is a reflection of the shared responsibility of the entire community and taxpayers to contribute to the implementation of public services and the progress of the nation. The following is tax revenue data for 2018–2022. Fluctuations in Indonesia's tax revenue during the 2018-2022 period. A decrease in achievement in 2019 (84.48%) and 2020 (89.2%) may indicate an increase in tax aggressive practices, including illegal actions such as tax evasion and tax evasion. Challenging economic conditions, especially during the COVID-19 pandemic, can prompt companies to look for unauthorized ways to reduce their tax burden.

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The decline in achievement can be attributed to the increasing aggressiveness of practices in taxation, which may be influenced by executive compensation structures that encourage tax avoidance, as well as the characteristics of managing directors that support aggressive strategies. Conversely, significant increases in 2021 and 2022 may reflect the effectiveness of tax reform and the active role of institutional owners in overseeing corporate tax practices. And it can also be linked to the post-pandemic economic recovery and the implementation of tax reform through the HPP Law, which strengthens the tax system and narrows the loophole for illegal practices (Ministry of Finance Media, 2023). According to Maulidah and Pratiwi (2019), tax aggressiveness refers to a company's efforts to engineer the amount of taxable income, either in a legitimate or unlawful way, which is usually designed in a systematic manner. This action is divided into two forms, namely tax cancellation and tax avoidance. As long as the law does not violate laws and regulations, tax aggressiveness can be considered legitimate and allowed. According to Junensie et al. (2020), an aggressive strategy in taxation can also be seen from the scale of the company and its ability to take advantage of loopholes in regulations to carry out tax avoidance. As a manufacturing subsector, the basic and chemical industries have complicated procedures and substantial funding needs. This process is characterized by a number of international transactions, especially those involving the import and export of goods and services, as well as the use of transfer pricing and profit diversion to avoid taxes. To help tax authorities identify areas that need further supervision, Amaliyah's (2023) research uncovered the factors that influence tax aggression against companies in the basic and chemical industries. Therefore, instead of companies from other industries, researchers focused on companies in the basic and chemical industries in the study. Executive remuneration as a measure of tax aggression is illustrated in the table below. The fact that the average value of ETR is not even close to the 25% income tax rate in Indonesia suggests that some companies in the basic and chemical industries may be committing tax evasion. The income tax rate in Indonesia is 25%, as regulated in Law No. 36 of 2009. It appears that these companies are being investigated for possible tax evasion practices. Toba Pulp Lestari Tbk, a pulp producer in Indonesia, is a prime example of tax aggression in the basic and chemical industry sectors. The company's profit record from 2007 to 2009 seems to be less than ideal due to errors in categorizing the types of pulp products exported. Tax avoidance efforts in Indonesia between 2007 and 2016 were strongly linked to corporate profit diversion operations, according to a Fair Tax Forum (2020) study (Laia, 2020). In addition, based on the decision of the Supreme Court of the Republic of Indonesia Number 5993 B/PK/PJK/2022, the results of the investigation by the Directorate General of Taxes determined that PT Toba Pulp Lestari Tbk had committed tax evasion. As a consequence of the audit findings, an Underpaid Corporate Income Tax Determination Letter (SKPKB) was issued for the 2017 Tax Year, amounting to USD 51,619.46.

The first factors that can affect tax aggressiveness behavior are executive compensation (Nurmaharani, 2022), the characteristics of the president director (Cahyati et al, 2024), and institutional ownership of (Andriyani et al (2021)). Inadequate executive compensation to account for long-term risks can encourage aggressive tax action. From the point of view of agency theory, supervisory and incentive mechanisms need to be designed to minimize conflicts between agents and principals, as well as reduce aggressive tax-related behavior. According to Sianturi (2023), tax aggression is significantly influenced by executive salaries. Executive remuneration is positively correlated with tax aggression, according to a study in Indonesia by Riswandari et al. (2020). On the other hand, the results of Nurmaharani's (2022) study did not find a correlation between CEO salary and tax aggression.

In addition, the personality traits of the president director or director are the second component that is anticipated to affect tax aggression. Several studies have examined this trait in relation to tax aggression. The characteristics of a president director are highly correlated with the length of the director's or CEO's tenure in an organization. In the case of

tax aggression, a president, director, or director who has never studied or worked in finance and taxation is more likely to take risks because they may not understand the consequences of their actions in the long run. Cahyati et al. (2024) report that, in terms of ETR, tenure as a measure of the attributes of the presidential director has a substantial negative impact. An indication of a director's dedication to the company can be seen from the length of his tenure. Directors who have been in the company for a long time tend to be more loyal than new directors.

Institutional ownership is a third element that can influence tax aggression. The term "institutional ownership" describes shareholding in organizations such as banks, law firms, government agencies, and trust funds (Ramadhani et al., 2021). This means that shareholders with greater voting rights may be better able to oversee management policies and stop them if they do something to the detriment of shareholders. Various researchers came to different conclusions, which, according to Andriyani et al. (2021), show differences in the results of previous studies. According to Andriyani et al. (2021), tax aggressiveness is influenced by institutional ownership. However, these findings contradict the findings of Prastyatini et al. (2023), which suggest that tax aggression is not influenced by institutional ownership. Latifah et al. (2024) came to a similar conclusion, stating that tax aggression is not influenced by institutional ownership.

Looking at the description above, there are differences in results or differences in findings (research gap) from several previous studies related to tax aggressiveness, so it is necessary to conduct further studies on this issue. In this study, the independent variables analyzed included executive compensation, characteristics of the president director, and institutional ownership. This research was developed from a previous study by Cahyati et al. (2024) entitled "The Effect of Compensation and Executive Characteristics on Tax Aggressiveness in Manufacturing Sector Companies Listed on the Indonesia Stock Exchange in 2019 – 2021". The objectives of the study and the independent variables used are the main differences between this study and its predecessor. This study expands the study on the impact of institutional ownership on tax aggressiveness by combining it with the work of Afdhal and Adiwibowo (2023). The reason behind this provision is that companies are less likely to engage in tax avoidance methods when the institution owns a larger proportion of shares, and the opposite is also true. Companies in the basic and chemical industry subsectors from 2020 to 2023 are the main focus of this study. In contrast to previous research that used executive compensation as an independent variable, the researcher is interested in raising the title "Factors Affecting Tax Aggressiveness (Study of Companies in the Basic and Chemical Industry Sectors Listed on the Indonesia Stock Exchange in 2020–2023)".

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

This research is based on agency theory, which states that there is a potential conflict of interest between the manager as an agent and the owner of the company as the principal. This conflict can prompt management to make decisions that benefit itself, such as tax aggressiveness. The provision of large executive compensation can be a driver for managers to reduce the tax burden to improve the company's net profit and financial performance (Sianturi et al., 2022). On the other hand, institutional ownership can act as a control tool against management's opportunistic behavior, although its influence is highly dependent on the level of strength and consistency of institutional involvement (Prastyatini et al., 2023). In addition, the characteristics of the president director, such as educational background and experience, also determine the direction of strategic policies, including tax decisions. Based on this study, this study proposes the following hypotheses:

Executive compensation can act as an incentive mechanism to align the interests of agents and principals. According to Sianturi et al. (2022), high compensation can encourage managers to improve performance by reducing the corporate tax burden. However, in some cases, compensation that is not tied to long-term goals can encourage opportunistic actions, such as tax aggressiveness.

**H1: Executive compensation affects tax aggressiveness**

Furthermore, the characteristics of the president director, such as educational background and work experience, can influence risk preferences and strategic decision-making including tax policy. President directors who are younger or have no experience in finance and taxation tend to be more tolerant of risks, including in carrying out tax avoidance strategies (Cahyati et al., 2024; Oktaviani & Wicaksono, 2021).

**H2 : The characteristics of the president director affect tax aggressiveness**

Meanwhile, institutional ownership is seen as one of the external oversight mechanisms that is able to limit management's opportunistic behavior. Financial institutions such as pension funds or insurance companies tend to have the ability and interest to oversee managerial decisions, including tax policy (Prastyatini et al., 2023). However, its effectiveness depends on the consistency and strength of the institution's influence.

**H3 : Institutional ownership affects tax aggressiveness**

### 3. RESEARCH METHODS

This study uses a quantitative approach with a positivist paradigm. The object of the research is companies in the basic industry and chemical sectors listed on the Indonesia Stock Exchange (IDX) in 2020–2023. Data was collected in April 2025. Sampling was carried out using **purposive sampling techniques**, based on certain criteria, and resulted in 144 observations. Data collection is carried out through observation and documentation of annual reports. The data analysis used multiple linear regression, preceded by a descriptive test and a classical assumption test.

Variable operational definition: (1). Tax Aggressiveness (Y): Measured by ETR = tax expense / profit before tax (Putri & Andriyani, 2021). (2). Executive Compensation (X1): Total remuneration of the board of directors (Sianturi, 2023). (3). Characteristics of President Director (X2): Length of tenure in years (Cahyati & Yuyetta, 2024). (4). Institutional Ownership (X3): Percentage of institutional shares (Afdhal & Adiwibowo, 2023). The following is the regression equation model used in this study:

$$ETR = \alpha + \beta_{1KE} + \beta_{2TENURE} + \beta_{3KINS} + st + e$$

Information:

ETR	: Effective Tax Rate as a measure of Tax Aggressiveness
$\alpha$	: Constant
$\beta_{1-5}$	: The regression coefficient of each proxy
To	: Executive Compensation
Possession	: Term of Office of President Director
Polish	: Institutional Ownership
e	: Standard Error

## 4. RESULT

### Descriptive Statistical Analysis

**Table 1: Descriptive Statistical Analysis Results  
Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Executive Compensation	144	,000	,994	,63931	,260722
Characteristics of the President Director (term of office)	144	20,087	33,222	23,55800	1,993611
Institutional Ownership	144	1	46	10,58	11,934
Tax Aggressiveness	144	-,038	,923	,25574	,153808
Valid N ( <i>in the direction of the list</i> )	144				

Source: SPSS Processed Data (2025)

Based on the results of the descriptive analysis in Table 1, it is known that executive compensation and the characteristics of the president director have a low data variation, while institutional ownership shows a higher data variation. Meanwhile, tax aggressiveness was recorded to have a relatively small data spread, which shows the consistency of values between companies in the sample."

### Normality Test Results

**Table 2: Outlier Transformation and Normality Test Results  
Kolmogorov-Smirnov Test One Sample**

			Unstandardized Residual
N			80
Normal Parameters <sup>a,b</sup>			
Mean			,0000000
Std. Deviation			,00684671
Most	Extreme	Absolute	,119
Differences		Positive	,119
		Negative	-,114
Test Statistic			,119
Asymp. Sig. (2-tailed)			.007c
Monte Carlo Sig. (2-tailed)			,192d
99% Confidence Interval			
		Lower Bound	,181
		Upper Bound	,202

Source : SPSS Processed Data (2025)

Based on table 2, the normality test for a *single Kolmogorov-Smirnov sample* after transformation and *outlier* showed a Monte Carlo significance value (2-tailed) of  $0.0002 > 0.05$ , indicating a normal data distribution. This test is typically used to determine the distribution of data. If the p-value is higher than 0.05, it is not enough to reject the null hypothesis, which indicates a normal distribution in the regression model.

**Multicollinearity Test Results**

**Table 3: Multicollinearity Test Results**

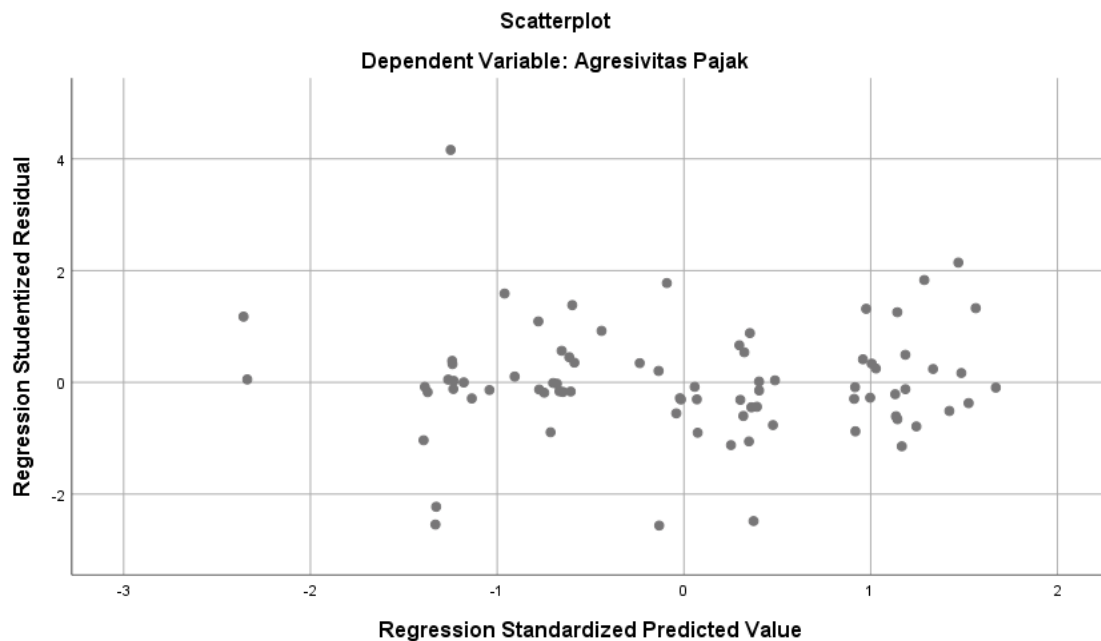
		Coefficient	
Type		Colinearity Statistics	
		Tolerance	VIVID
1	Executive Compensation	,775	1,291
2	Characteristics of the President Director	,789	1,267
3	Institutional Ownership	,965	1,036

Source: SPSS Processed Data (2025)

According to table 3, namely finding Executive Compensation, Characteristics of the President Director and institutional ownership have a tolerance of  $> 0.10$  and VIF  $< 10$ , which shows that the research data is not multicollinear. This shows that the relationship between variables is still weak and does not affect the stability of the regression model.

**Heteroscedasticity Test Results**

**Figure 1: Heteroscedasticity Test Results**



Source: SPSS Processed Data (2025)

According to figure 1, the data points are generally positive and negative, both positive and negative, which indicates heteroscedasticity in the regression model. To detect heteroscedasticity, one method is to compare the residual values in the residual plot with the prediction plot. If the point is negative, the regression model assumes heteroscedasticity or residual variance.

### Autocorrelation Test Results

**Table 4: Autocorrelation Test Results  
Model Summary<sup>b</sup>**

Kind	R	R Square	Customized R Box	Std. Estimation Error	Durbin- Watson
1	,674a	,454	,433	,00698	1,131

a. *Predictors:* (Constant), Executive Compensation, President Director Characteristics, Institutional Ownership

b. *Dependent Variables:* Tax Aggressiveness

Source : SPSS Processed Data (2025)

According to table 4 It is known that the durbin watson value of 1.131 is between -2 and +2 ( $-2 < 1.131 < 2$ ) so it can be concluded that there are no autocorrelation symptoms in the regression model in this study. According to Gujarati and Porter (2021), the Durbin-Watson value being close to 2 indicates the absence of serial correlation in the residual regression model.

### Multiple Linear Regression Analysis Test Results

**Table 5: Multiple Regression Analysis Test Results**

Kind	Coefficient		Standard Coefficients Beta	t	Sig.
	Non-Standard Coefficients B	Std. Error			
1 (Constant)	,553	,063		8,711	,000
Executive Compensation	-,015	,003	-,521	-5,412	,000
Characteristics of the President Director	,053	,020	,257	2,692	,009
Institutional ownership	,000	,001	-,026	-,301	,764

a. *Dependent Variable:* Tax Aggressiveness

Source : SPSS Processed Data (2025)

Based on the results of multiple linear regression in Table 5, the significance values for each variable were obtained as follows: (1). Executive Compensation had a negative and significant effect on tax aggressiveness ( $p = 0.000 < 0.05$ ), so H1 was accepted. (2). The characteristics of the President Director had a positive and significant effect on tax aggressiveness ( $p = 0.009 < 0.05$ ), so that H2 was accepted. (3). Institutional ownership had no significant effect on tax aggressiveness ( $p = 0.764 > 0.05$ ), so H3 was rejected.

## Hypothesis Test Results

### T Test Results

According to table 5 the results of the t-test can be explained by:

1. The executive compensation variable has a significance value of  $0.000 < 0.05$ , so it can be concluded that the first hypothesis, which reads "Executive compensation has an effect on the action of Tax Aggressiveness, is accepted.
2. The variable of the characteristics of the president director has a significance value of  $0.009 < 0.05$  so it can be concluded that the second hypothesis, which reads "The characteristics of the president director have an effect on the actions of Tax Aggressiveness", is accepted.

The institutional ownership variable has a significance value of  $0.764 > 0.05$  so it can be concluded that the third hypothesis, which reads "Institutional ownership affects tax aggressiveness actions", is rejected.

### Determinant Coefficient Test Results (R2)

**Table 6: Test of Determination Coefficient  
Model Summary<sup>b</sup>**

Type	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,674a	,454	,433	,00698	1,131

a. Predictors: (Constant), Executive compensation, Characteristics of the President Director, Institutional ownership

b. Dependent Variable: Tax Aggressiveness

Source : SPSS Processed Data (2025)

Table 6 shows the results of the determination coefficient test; An adjusted R-Squared value of 0.433, or 43.3%, was obtained from this result. The determinant of tax aggression can be explained by the quality of the president/director, institutional ownership, and executive salary of 43.3%. However, other factors not considered in this study accounted for the remaining 56.7%.

### The Effect of Executive Compensation on Tax Aggressiveness

The results of the study show that executive compensation has a negative and significant effect on tax aggressiveness. That is, the higher the compensation given to management, the lower their tendency to engage in aggressive tax avoidance. These findings are in line with the results of research by Hariyanto and Utomo (2019), which also found a negative correlation between executive compensation and tax aggressiveness. This explanation is supported by agency theory, in which providing adequate incentives to managers can align interests between agents and principals, as well as reduce managers' motivation to take opportunistic actions such as tax avoidance. In addition, these results are also consistent with Sianturi (2023), who states that compensation structures can act as a control tool in corporate governance. Thus, high compensation actually encourages more careful management behavior and in accordance with the company's long-term goals.

### The Influence of President Director's Characteristics on Tax Aggressiveness

This study found that the characteristics of the president director, as measured by the length of tenure, had a positive and significant effect on tax aggressiveness. This means that the shorter the term of office of the president director, the greater the tendency of the company to implement aggressive taxation strategies. This can happen because newly appointed or inexperienced directors tend to make risky decisions, including in tax policy, as part of an effort to demonstrate short-term performance.

These results are in line with the study of Oktaviani and Wicaksono (2021), which stated that directors with shorter tenures tend to have a higher tendency towards aggressive behavior in decision-making, including tax avoidance. These findings are also consistent with agency theory, where managers' personal characteristics (such as age, experience, or background) can influence the extent to which they will act opportunistically against the interests of the company owner. Thus, the results of this study support the hypothesis that the characteristics of the president director have an influence on the level of corporate tax aggressiveness.

### **The Influence of Institutional Ownership on Tax Aggressiveness**

The results of this study show that institutional ownership does not have a significant effect on tax aggressiveness, with a significance value of 0.764 ( $p > 0.05$ ) and a coefficient of -0.000. Thus, the third hypothesis (H3) is rejected. This shows that no matter how large the proportion of shares owned by the institution, it does not directly influence managerial decisions in implementing aggressive tax strategies. These findings are in line with the research of Prastyatini et al. (2023), Latifah et al. (2024), and Anisah and Sastri (2023), who found that institutional ownership does not play a significant role in suppressing tax avoidance behavior. One possible reason is the passive nature of most institutions, which focus more on short-term profits and are not involved in the company's strategic decision-making. In addition, the unconcentrated spread of ownership between institutions can also reduce the effectiveness of control over management. Although agency theory assumes that institutional ownership serves as an effective external oversight mechanism, the reality is that not all institutions perform this function optimally. The study of Sari and Wulandari (2021) also supports this view, stating that institutional ownership does not affect the value of the company, including in strategic policy making such as taxation. Thus, in the context of the companies studied, institutional ownership has not been proven effective in reducing tax aggressiveness. The role of institutions as external controllers still needs to be reviewed more deeply regarding the quality of their involvement and the consistency of their supervision.

## **5. CONCLUSION**

This study aimed to analyze tax aggressiveness in the basic and chemical industries from 2020 to 2023 and find out how factors such as CEO salary, president/director characteristics, and institutional ownership affect it. The following conclusions are drawn from the results of the research obtained through the method of agency theory and multiple linear regression: (a). Executive compensation has a negative and significant impact on tax aggressiveness for companies in the basic and chemical industry sectors for the 2020 - 2023 period. (b). The characteristics of the president director as measured through the term of office have a positive and significant influence on tax aggressiveness on companies in the basic and chemical industry sectors for the period 2020 - 2023. (c). Institutional ownership did not have a significant impact on tax aggressiveness against companies in the basic and chemical industry sectors for the period 2020 - 2023.

In this study, of course, there are limitations of the research, namely: (1). This study only uses a sample of companies in the basic and chemical industry sectors listed on the Indonesia Stock Exchange in 2020 - 2023, with a total of 144 observations of research data. So the results of this study cannot be generalized. (2). This study has limitations in using only 3 (three) independent variables, so it has not been able to capture other factors that can also affect tax aggressiveness. (3). This research also has limitations because it only uses one theoretical approach, namely the agency theory approach as a basis for analyzing the relationship between the variables studied.

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