

CEO compensation and aggressive tax planning in China: Does firm size make a difference?

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Abstract: This study looks at how CEO pay affects aggressive tax planning (ATP) in A-share companies in China. It also checks if the size of the company changes this effect. Using data from 2017 to 2022, the study finds that higher CEO pay leads to more ATP, and that company size plays a role in this relationship. This research adds to previous studies by showing how CEOs influence tax strategies in a growing market. It also highlights the importance of company size in corporate governance as China's economy grows. The results suggest that companies should improve how they pay executives and manage taxes, and tax authorities should pay more attention to executives and taxes as companies get bigger. Overall, this study opens up new areas for future research on CEO pay and tax behavior.

Keywords: *Aggressive tax planning, CEO compensation, Firm size, State owned enterprises.*

1. Introduction

A complex tax system and tax burden among firms could lead to higher corporate aggressive tax planning (ATP) [1, 2]. With the ongoing efforts to combat ATP, the government has implemented a tax policy consistent with the Base Erosion and Profit Shifting (BEPS) project. For example, China launched the third phase of the Golden Tax Project, which aims to cover tax administration and collection, while promoting the use of digital systems in tax administration [3].

In 2017, China's State Administration of Taxation strengthened cooperation with various government departments and strengthened joint penalties. In addition, China's tax system continues to promote the efficiency of tax administration and services, and in 2018 promoted the reform of "delegating management services" with a focus on improving the tax business environment [4]. The emergence of ATP is due to the deficiency of China's tax laws and immaturity in corporate governance [5-7].

ATP artificially shift profits to places where there is no or reduced tax [8, 9]. China has strengthened its tax laws and increased regulation, which has raised concerns among taxpayers about potential penalties [10]. In an era of strict state regulation, the scrutiny of anti-corruption executives significantly influences corporate tax avoidance [11]. Among top managements, Chief Executive Officers (CEOs) have significant influence in corporate activities, especially in areas such as tax planning behaviors and practices [12].

In view of the pivotal role that CEOs play in tax planning matters, it is critical to examine the influence of CEOs on tax aggressiveness. Prior studies have examined how observable attributes like CEO demographics (including age, gender, professional background and tenure) influence tax aggressiveness [13-15]. However, the significance of CEO compensation as one of fundamental attributes has been under explored in the context of ATP issues in China. Therefore, this study investigates the influence of the demographics of CEOs, recognizing their fundamental and critical role

in assessing the level of ATP in the Chinese context. In China, managerial compensation is predominantly cash [16, 17], leading managers to pursue short-term corporate goals. Cash-based executive compensation is usually more closely scrutinized by the market than that based on incentives, especially with regard to risks associated with stock and bond markets, which can lead to adverse selection [18].

Based on the agency theory, the issue of executive compensation is both complex and controversial. CEO compensation is largely affected by their financial performance and the dynamic pressures of competitive markets [19, 20]. Prior studies have examined the influence of CEO compensation on ATP, mainly using evidence from other countries such as Indonesia [14, 21] and France [13]; Italy [22]. The paper conducted a further investigation and examined whether CEO compensation affect ATP in China. Second, the limited studies on the influence of solely CEO compensation on ATP is the objective of this study, although there are some studies that have investigated tax avoidance behaviors of Chinese executive teams, which previous scholars mainly focus on the compensation structure of top management levels [18, 23, 24].

This study deliver some key significance to the prior literature. First, this study additionally extends the findings on CEO compensation and ATP in the Chinese context from the perspectives of agency theory. Second, this study also incorporates the moderating effect of firm size, which poses influence on the effect of CEO compensation and ATP along with the increasing Chinese economic scales and also found that the above variables among non state-owned enterprise (SOE) firms are more tax aggressive than them among SOE. Third, specifically examining individual CEO compensation among Chinese listed companies is crucial for understanding ATP-related behaviors and enhancing corporate governance. Moreover, this paper also offers government authorities insights to refine tax policies and oversee corporate income tax. State tax administration and its local branches can use this information to classify businesses by their characteristics and structure, improving tax supervision, management, and revenue recovery. Simultaneously for firms, as the firm size increases, CEO compensation is one of important affairs for firms to deal with principal-agent relationship on corporate behaviors such as tax planning strategies.

The following sections are arranged below. The second section analyzed the relevant studies and then initiated the hypotheses. The third section designed the research methodology. Section 4 showed the descriptive statistics and empirical analysis. The fifth section examined robustness tests and further analyses. Last, the sixth section offered the conclusion and summary of the study.

2. Literature Review and Hypothesis Development

2.1. CEO Compensation And ATP

CEO compensation in Chinese listed companies typically consists of base salary, individual performance pay, and group cash bonuses. Unfortunately, the available data only provides total cash incentives, rather than breaking down cash compensation into these components [16, 25]. By contrast, the empirical literature on CEO compensation in the U.S consistently finds that equity-based incentives such as stock options, restricted stock, and shareholdings play a crucial role in mitigating agency problems. However, prior studies on CEO compensation has largely overlooked the effect of CEO ownership among compensation structures in Chinese context. The possible reason is that ownership are having been allowed to be introduced since 2005 and less implemented recently in China [26, 27].

CEO compensation is at the centre of corporate governance discussions, reflecting how top executives are incentivised and rewarded for performance [16, 28]. In recent years, in addition to discussions of governance practices, the correlation between CEO compensation and active tax planning strategies has become increasingly prominent. ATP involves the use of complex financial structures and international tax frameworks to minimize tax liabilities, which often raises ethical and regulatory concerns. The alignment of CEO remuneration packages with these strategies highlights issues of risk management, corporate ethics and shareholder value maximization. Understanding this relationship

helps gain insights into how executive incentives affect tax strategies and more extensive implications for governance mechanisms and regulatory oversight in China.

Prior researches have explored the negative relationship between CEO compensation and ATP in the international context excluding China. For example, Edmans, et al. [19] examined managerial compensation and find that both boards of directors and shareholders aim to maximize corporate wealth for long-term sustainability. Jbir, et al. [13] analyzed 40 firms listed on the CAC 40 in France from 2008 to 2018 and find that the higher level of CEO compensation, the lower the tendency for tax aggressiveness. Moreover, Chee, et al. [29] examined a negative correlation between CEO compensation and their tendency to engage in tax planning in the U.S. Similarly, Armstrong, et al. [30] examined the initial perspective and directly examined the link between the effect of CEO and the scope of corporate tax planning. CEO compensation was negatively related to the ATP.

Some researchers have also explored the negative association between CEO compensation and ATP in the Chinese context. For example, Huang, et al. [18] show that firms offering higher executive compensation tend to exhibit lower tax aggressiveness. Yao [11] finds that the establishment of fair pay incentives should be based on a positive relationship between shareholders and managers. Therefore, these empirical findings are expected to provide insights to regulators, academics and managers on the adverse effects of CEO compensation on ATP. When firms offer higher compensation to executives, these executives may defend the firm's interests and reputation then avoid ATP [31].

On the other hand, agency theory suggests that the agent's task is to oversee the firm's operations according to the principal's preferences. The compensation provided to executives is a mechanism by which the agent promotes the interests of shareholders. Executives are promoted by higher pay and tend to improve firm performance. This improvement can be demonstrated through various means, including the implementation of more aggressive tax strategies [32]. Some findings suggest a positive association between ATP and increased compensation, as Armstrong, et al. [30] argue that increased CEO compensation reduces firms' tax costs and encourages more ATP. Thus, based on the agency theory, ATP might be a cost saving tool for CEOs' motivation on firm profit maximization. Luo and Zeng [33] suggested that the more intense the competition for CEOs' salaries, the more tendency for managers to use tax avoidance to gain hidden benefits. Therefore, this hypothesis proposes the influence of CEO compensation on ATP based on the agency theory:

H₁: Higher CEO compensation is positively linked to an increase in the level of ATP.

2.2. The Moderation of Firm Size between CEO Compensation and ATP

Firm size could serve as a moderating variable that significantly influences the relationship between CEO compensation and corporate tax avoidance practices [34]. The size of a firm, often measured by its total assets, affects its capacity to engage in tax avoidance strategies and can also enhance the firm's overall productivity [35-38].

Prior studies on the influence of firm size on ATP has highlighted opposing viewpoints. On one hand, based on political power theory, large firms have the ability to influence the political process in their favor. These firms might discuss tax issues and lobby governments for favorable policies, which allows them to optimize tax planning decisions and gain more benefits at lower costs. The political power wielded by large firms can enhance the role of tax planning in alleviating financial constraints [39, 40]. Additionally, firm size positively affects tax aggressiveness suggests that large firms tend to exhibit greater tax aggressiveness and are believed to benefit from economies of scale in tax planning [41-43]. Based on the political cost hypothesis, large firms are more likely to attract scrutiny from regulators and the public. As a result, they may be less inclined to engage in tax evasion [44].

Firm size moderates the association between CEO compensation and ATP. Syahfitri, et al. [45] suggested that firm size should be considered as an intervening variable as well as a moderating variable, which has implications for the relationship between managerial ability and tax aggressive behaviour. In China, current studies still lack of researches on the moderating role of firm size in the

relationship between CEO compensation and ATP. Firm size may affect the implementation of aggressive tax planning strategies because larger firms have more available resources and are subject to greater cost and profit pressures than smaller firms. Exploring the impact of CEO compensation and ATP by the moderating role of firm size level can be innovative in the Chinese corporate governance field. The conclusion to be drawn from the results is that there exists a relationship between firm size and ATP. Based on this, the following hypotheses are proposed:

H₂: Firm size moderates CEO compensation and ATP among Chinese listed firms.

3. Research Methodology

3.1. Population and Sampling

The study selects the sample from the raw data population by using purposive sampling. The sample consists of listed companies on the Shanghai and Shenzhen Stock Exchanges from 2017 to 2022. CEO compensation and ATP data were sourced from the financial reporting sub-database of the China Stock Market and Accounting Research Database (CSMAR). Data on moderating and control variables were also obtained from the CSMAR database. To mitigate the impact of outliers, continuous variables in the top and bottom 1% of their respective distributions were Winsorized.

The initial six-years firm observations are 29,628. The procedure of sample selection are follows: First, firms that received special treatment (S.T) due to unusual financial issues were excluded to avoid introducing extreme values that could skew the empirical analysis. Second, financial firms were excluded to reduce potential regulatory bias in the financial statement., which is consistent with the literature prior to tax accounting [3, 10, 38], after excluding missing variables using STATA software to filter and balance the panel data that contains 8040 firm-year observations from 2017 to 2022.

3.2. Measurements of Variables

3.2.1. Dependent Variable-Aggressive Tax Planning

The main focus of this study is ATP, which serves as the dependent variable. Based on the above literature review, BTD is equivalent to (pre-tax book income* statutory tax rate-current tax expenses)/lagged total income, this value is suitable for the Chinese context in measuring tax aggressiveness [4, 46]. Some other methods are also used frequently to measure ATP. Effective tax rate, which is equivalent to (Income tax expense-deferred income tax expense)/EBIT, this ratio is not only affected by tax avoidance strategies, but also by the statutory tax rate, which varies significantly by region, industry and corporate structure [47]. Therefore, low ETR may stem from favourable tax rates and/or tax avoidance activities. Even if two firms exhibit similar ETRs, their tax aggressiveness may differ due to differences in statutory tax rates. Thus, ETRs do not only accurately reflect tax aggressiveness. Additionally, TACC, the total accrual is calculated using net income less cash flows from operations in proportion to total assets [48].

3.2.2. Independent Variable - CEO Compensation

When it comes to CEO compensation, offering regular salary amount and cash bonuses is a key way to align the company's interests with those of the CEO. The higher the compensation of the CEO, the more these CEOs tend to defend the company's interests and the more they tend to avoid taxes. Tax avoidance is a key strategy to increase a company's after-tax profits [24]. In this study, compensation is quantified as annual remuneration and other cash bonuses in thousands of RMB [49].

3.2.3. The Moderating Effect- Firm Size

In this study, firm size is adopted as a moderating role to examine ATP. Firm size is represented as the natural logarithm of total assets, denoted as size [18, 50]. Firm size is positively associated with the level of ATP, as larger sized firms may tend to have more ATP. This is because large assets and extensive operations generally result in higher profits and tax liabilities [51]. Large firms can leverage

economies of scale through ATP, as they possess the resources, technology, and incentives to efficiently optimize their tax strategies [52]. This moderating variable is sourced from the CSMAR database.

3.2.4. Control Variables

This study examines the correlations between CEO compensation and ATP. To check the validity of the empirical analysis, it is necessary to control for certain firm attributes when constructing the model [53]. Drawing from insights in existing studies, this study identifies key control variables that impact ATP. First, financial leverage is considered, which is shown by dividing total debt by total assets [31, 54-56]. Second, ROA, an indicator of profitability, is measured by dividing after-tax earnings by total assets [16, 57, 58].

Third, this study includes operating cash flow because it reflects the tax cost associated with the firm's cash flow operations. The company's operating cash flow is closely linked with its tax expense in the context of firm operations. A higher operating cash flow ratio typically indicates higher profits, which may induce firms to engage in tax avoidance [51]. In this study, it is hypothesized that tax aggressiveness is positively associated with operating cash flow (OCF). The operating cash flow ratio is calculated by dividing operating cash flow by total assets.

Fourth, the Independent Director Ratio (IDR) is included as a control variable. Lanis and Richardson [59] and Lv, et al. [60] found that a higher proportion of independent directors on the board is associated with a lower likelihood of engaging in tax-aggressive behavior. In this study, the IDR is calculated by dividing the number of independent directors by the total number of directors on the board [61]. Furthermore, firms that hold state-owned assets are subject to stricter governmental oversight than privately-owned enterprises. As a result, private firms are generally considered more prone to tax evasion than state-owned enterprises [61]. To capture this distinction, this study includes a dummy variable for ownership type, where state-owned firms are coded as 1 and non-state-owned firms as 0. This classification follows the methodology adopted in previous research [10, 62].

3.3. Model Formulations

Aligned with the corresponding objectives of this research, the following regression equation is to examine the panel data. Panel data consists of observations collected from 2017 to 2022. The general structure of the panel data model is as follows:

$$BTD = \beta_0 + \beta_1 \ln \text{Salary}_{i,t} + \beta_2 \text{LEV}_{i,t} + \beta_3 \text{IDR}_{i,t} + \beta_4 \text{ROA}_{i,t} + \beta_5 \text{OCF}_{i,t} + \beta_6 \text{SOE}_{i,t} + \epsilon_i; t$$

Subsequently, this research investigates the impact of firm size on CEO compensation concerning their influence on ATP behavior. Building upon Hypotheses The moderating role of firm size and the corresponding interaction terms are collectively integrated into Model 2, as depicted below:

$$BTD = \beta_0 + \beta_1 \ln \text{Salary}_{i,t} + \beta_2 \text{Size}_{i,t} + \beta_3 \ln \text{Salary}_{i,t} * \text{Size}_{i,t} + \beta_4 \text{LEV}_{i,t} + \beta_5 \text{IDR}_{i,t} + \beta_6 \text{ROA}_{i,t} + \beta_7 \text{OCF}_{i,t} + \beta_8 \text{SOE}_{i,t} + \epsilon_i; t$$

4. Regression Analysis

4.1. Descriptive Statistics

The descriptive statistics of the main variables are reported in the below Table 1, which presents the mean, standard deviation, minimum, median, and maximum values for each variable. The average book-tax difference (BTD) is -0.00900, suggesting that, in contrast to the positive BTD found in U.S. data, the accumulated BTD in China is negative. This indicates that Chinese tax law is more conservative in expense recognition compared to accounting principles [35, 63]. CEO compensation is measured using the natural logarithm, with minimum and maximum values of 11.56 and 13.65, respectively. This suggests that CEO compensation in Chinese listed firms remains relatively low compared to firms in developed countries [16, 25].

The moderating variable firm size (Size) has also a relatively average value of 22.57, minimum and maximum number of 20.33 and 26.40. For SOE, this sample shows 28.9% among the listed firms in China from 2017-2022 based on the dummy variable 1 that represents SOE and 0 for non SOE listed firms.

Table 1.
The Descriptive Statistics.

Variables	Min.	Max.	Mean	SD
BTD	-0.264	0.095	-0.009	0.052
lnSalary	11.560	15.810	13.690	0.794
SIZE	20.330	26.400	22.570	1.226
LEV	0.067	0.847	0.421	0.187
IDR	33.330	57.140	37.860	5.344
ROA	-0.487	0.217	0.023	0.095
OCF	-0.132	0.284	0.060	0.071
SOE	0	1	0.289	0.453

4.2. Correlation Matrix

Table 2 below presents correlations among the main variables including ATP, CEO compensation, Size, SOE, LEV, IDR, ROA, and OCF reveals several significant relationships. The correlation between ATP and CEO compensation is 0.122, demonstrating that a positive association between CEO compensation and ATP. The moderating variable size is positively correlated with ATP and CEO compensation, consistent with Tang, et al. [31], [64, 65] found that the tendency to engage in ATP is more pronounced in larger corporations as CEO compensation increases.

Larger firms have more resources and more sophisticated financial operating systems that can support ATP strategies [43, 66]. At the same time, higher CEO compensation tends to be linked to performance targets, prompting top executives, driven by compensation incentives, to take advantage of the firm's size to behave more tax aggressive. ROA and OCF suggesting that higher ATP is associated with higher profitability and OCF of firms. Conversely, ATP has a negative correlation with LEV, implying that higher leverage is associated with lower tax aggressiveness but no correlation with IDR.

Table 2.
Correlation Matrix.

	BTD	lnSalary	SIZE	LEV	IDR	ROA	OCF	SOE
BTD	1							
lnSalary	0.122***	1						
SIZE	0.132***	0.389***	1					
LEV	-0.164***	0.108***	0.509***	1				
IDR	0.004	-0.002	-0.009	-0.037***	1			
ROA	0.020*	0.021*	0.036***	0.005	-0.039***	1		
OCF	0.222***	0.187***	0.085***	-0.170***	0.036***	0.024**	1	
SOE	0.066***	0.062***	0.122***	0.085***	-0.071***	0.014	0.021*	1

4.3. Multi-Collinearity Test

According to Table 3, the minimum VIF is ROA=1 and the largest value is SIZE=1.630, suggesting that a low multicollinearity and exists no multicollinearity issue and the estimates of the regression coefficients should be reliable [67].

Table 3.
Multi-Collinearity Test.

Variable	VIF	1/VIF
SIZE	1.630	0.613
LEV	1.450	0.690
lnSalary	1.220	0.820
OCF	1.100	0.910
SOE	1.020	0.979
INDR	1.010	0.991
ROA	1	0.996

4.4. Autocorrelation

Autocorrelation occurs when error components are correlated over time, violating the regression model's assumption of uncorrelated error terms. The empirical analysis was tested using the Wooldridge test for auto correlation. The p-value was significantly below 0.05 from Table 5, indicating strong evidence of auto correlation.

Table 5.
Wooldridge Test for Autocorrelation

ATP	
F (1, 1339)	16.686
Prob > F	0.0000

Note: H₀: no first order autocorrelation.

4.5. Selection between Pooled OLS Regression and Random Effect

The Breusch and Pagan Lagrangian multiplier test for random effects is used to determine whether to apply the random effects model or the OLS regression. The null hypothesis suggests that there is no significant variance. If the test yields an insignificant result, the null hypothesis is accepted, demonstrating that the pooled OLS regression is appropriate. A p-value is below 0.05 that shows the rejection of the null hypothesis and show the presence of significant variance and correlations, which justifies the use of the random effects model.

Table 6.
Breusch and Pagan Lagrangian Multiplier Test

Chibar ² (01)	700.42
Prob > Chibar	0.000

4.6. Selection between Fixed Effect and Random Effects

The Hausman test results assist in selecting between fixed effects and random effects models in panel data analysis. Rejection of the null hypothesis indicates that the fixed effects model is more suitable. A p-value lower than 0.05 suggests that there are correlations between individual effects and explanatory variables, making the random effects model inconsistent. Therefore, the Hausman test strongly recommends the use of the fixed effects model for this data set.

Table 7.
Results of Hausman Specification Test

Chi ² (7)	214.75
Prob > Chi ²	0.000

4.7. Regression Results

According to Table 8a, the regression analysis results for the effect of CEO compensation and other variables on ATP are presented in two-steps models (1, without years and industry controlled and 2,

with years and industry controlled). Across the two models, the logarithm of CEO compensation, $\ln\text{Salary}$ shows a significant positive effect on ATP, indicating that higher CEO compensation is related to the increasing level of tax aggressiveness. Leverage consistently exhibits a significant negative effect on ATP, suggesting that firms with higher leverage tend to have lower degree of ATP.

Operating cash flow (OCF) also positively affect ATP, implying that firms with more cash holdings have higher level of tax aggressiveness. The SOE is positively associated with ATP, indicating that SOEs tend to have a higher degree of ATP. Independent directors proportions and return on assets are not statistically significant. Year and industry controls in Model (2) increase the explanatory power of the model, as reflected by the highest R^2 value (0.084). The F-statistics indicate overall model significance.

Table 8.
Regression for CEO compensation and ATP

	BTD	BTD
$\ln\text{Salary}$	0.006*** (4.591)	0.006*** (4.248)
LEV	-0.145*** (-19.087)	-0.146*** (-18.776)
IDR	-0.000 (-0.109)	-0.000 (-0.091)
ROA	0.007 (1.122)	0.007 (1.034)
OCF	0.088*** (9.041)	0.089*** (9.043)
SOE	0.005** (2.529)	0.005** (2.433)
Year	NO	YES
Industry	NO	YES
N	8040	8040
R^2	0.068	0.084
F	81.595	20.310

4.8 Moderating Effect Regression

The regression results reveal the effects of CEO compensation with the firm size's moderation on ATP across different sub-samples. In the overall model (1), CEO compensation positively affect ATP, and firm size also demonstrates a strong positive effect. However, the intersection between CEO compensation and firm size ($\ln\text{Salary}*\text{Size}$) is negatively significant ($p < 0.01$), suggesting a moderating effect, where the relationship between CEO compensation and ATP diminishes as firm size increases.

Table 9.
Regression for CEO compensation and ATP

	BTD
lnSalary	0.004*** (3.036)
Size	0.036*** (15.400)
lnSalary*Size	-0.004*** (-4.142)
LEV	-0.177*** (-22.437)
IDR	-0.000 (-0.621)
ROA	0.006 (1.022)
OCF	0.082*** (8.449)
SOE	0.004** (2.245)
Year	YES
Industry	YES
N	8040
R ²	0.116
F	27.385

Note: *, **, *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

4.9. Robustness Test

4.9.1. Effects of different ownership types between CEO compensation and ATP

Based on the below Table 10, the column 1-2 shows the regressions without the moderating effect of firm size, and the column 3-4 shows the regressions with the moderating effect of firm size. For SOEs, lnSalary is positively associated with ATP at the 10% significance level ($p < 0.1$), while for non-SOEs, indicating a more positively significant relationship in non-SOEs respectively in the column 1-2, which aligns with prior studies like [11]. In the column 3-4, after the intersection of the moderating role of firm size between CEO compensation and ATP, the result shows firm size solely in non SOEs have a negative significance on ATP, the possible reason is that the regulatory scrutiny and shareholders' risk perception are growing as the increasing in firm size.

Table 10.
Regression Results of CEO Compensation and ATP under Different Ownership Types

	(1)	(2)	(3)	(4)
	SOE	Non SOE	SOE	Non SOE
	BTD	BTD	BTD	BTD
lnSalary	0.004*	0.007***	0.002	0.005***
	(1.809)	(3.958)	(0.689)	(2.643)
Size			0.037***	0.041***
			(7.932)	(13.344)
lnSalary*Size			0.000	-0.005***
			(0.063)	(-4.412)
LEV	-0.126***	-0.166***	-0.158***	-0.199***
	(-9.239)	(-16.136)	(-11.299)	(-19.163)
IDR	0.000	-0.000	0.000	-0.000
	(1.124)	(-0.411)	(1.166)	(-0.725)
ROA	0.009	0.004	0.001	0.005
	(0.673)	(0.507)	(0.054)	(0.638)
OCF	0.059***	0.102***	0.056***	0.093***
	(3.847)	(7.833)	(3.668)	(7.275)
N	2321	5719	2321	5719
R ²	0.109	0.085	0.142	0.122
F	9.043	15.075	11.206	21.050

Note: *, **, *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

4.9.2. Alternative Proxy of Dependent Variable

According to Table 11, the robustness test results for the dependent variable replacement, using total accruals (TACC) instead of BTM, a common measurement for ATP, provide further insight into the stability and consistency of the relationship observed in the preliminary analysis. TACC is calculated as net income minus cash flows from operating activities. The regression results for the entire sample, SOEs, and non-SOEs show the relationship between CEO compensation and TACC. Across all models, CEO compensation is positively and significantly associated with TACC, indicating that higher CEO compensation is linked to higher total accruals. Leverage consistently shows a significant negative effect on TACC.

Independent directors and profitability are statistically insignificant. OCF has a strong negative effect on TACC across all samples. The SOE variable is significant in the whole sample model, indicating that state ownership has a positive effect on TACC. The R² values indicate that the models explain 38% of the variance in TACC for the whole sample, 47.6% for SOEs, and 35.4% for non-SOEs. The robustness test results generally support the findings of the primary analysis. The consistency of these results across different model specifications reinforces the reliability of these relationships.

Table 11.
Using TACC instead of BTD

	Whole Sample	SOE	Non SOE
	TACC	TACC	TACC
lnSalary	0.012*** (7.840)	0.011*** (4.250)	0.013*** (6.653)
LEV	-0.168*** (-18.917)	-0.176*** (-10.810)	-0.176*** (-15.194)
IDR	0.000 (1.107)	0.000 (0.875)	0.000 (1.056)
ROA	-0.002 (-0.225)	-0.005 (-0.346)	-0.002 (-0.182)
OCF	-0.647*** (-57.559)	-0.651*** (-35.213)	-0.649*** (-44.259)
SOE	0.005** (2.442)	—	—
Year	YES		
Industry	YES		
N	8040	2321	5719
R ²	0.380	0.476	0.354
F	136.322	66.765	88.883

Note: *0.1 **0.05 ***0.01.

5. Discussions

Recently, as Chinese listed firms continue to grow, the role of CEOs, being the highest-ranking executives, has garnered significant attention, particularly regarding their compensation mechanisms and decisive behaviors, such as tax strategies. This research extends to examine the correlation between CEO compensation and ATP and adopt firm size as the moderating role, which is more likely to weaken or strengthen the variables.

After this empirical analysis, this study has examined relationships between CEO compensation and ATP in Chinese context. First, CEO with higher level of compensation tends to assume aggressive tax planning among corporate decisions to achieve a higher profit maximization as agency theory and the hypothesis 1 supported. This hypothesis is consist with Armstrong, et al. [30] and Balkish and Jamaliah [68] suggested that higher CEO compensation leads to CEOs incline to adopt low tax costs strategies and then promote ATP and Luo and Zeng [33] found that the more intense the competition for CEO compensation, the greater the possibility that managers will use ATP to gain implicit benefits.

Second, hypothesis 2 CEO compensation and ATP under SOE and Non-SOE is supported because of the higher level of ATP with CEO compensation under non SOE than SOE context, which shows the private listed firms are increasing and some of these firms may inclined to tax aggressiveness. This result of hypothesis 2 is consistent with Chan, et al. [69] and Wang, et al. [70] suggested that SOE adopt less aggressive tax strategies than their non-SOE, non state owned firms with higher CEO compensation may adopt a higher degree of ATP.

Third, Hypothesis 3 illustrates that there are typically more robust internal controls, stricter governance, and greater regulatory scrutiny along with the growing firm size, which these factors limit CEOs to engage in ATP, even if they are highly compensated. This is a new finding and good indicator for firms and governments, they both concern about corporate tax management and CEO's strategic behaviors. Moreover, the moderating role result also shows that there is insignificant relationship

between CEO compensation and ATP among non SOE, which is consistent with Chan, et al. [69], He and Shen [71] suggests that CEO or top managers of SOE are connected to government, their promotions and career prospects are evaluated by a range of social and political objectives, rather than solely financial performance, such as maximizing enterprise profits to choose ATP. About control variables, leverage and OCF are also positively significant with ATP from both Table 8 a and table 8 b suggesting that a larger firm may take ATP behaviors and non SOEs are more inclined to adopt ATP to make maximum profits.

6. Conclusions

This study examines the influence of CEO compensation on the ATP of listed companies in China, which also examine firm size's moderation during 2017-2022. Based on year 2017-2022 listed companies, the final sample size for data analysis after the purposive sampling techniques consists of 8,040 companies. This research demonstrated the positive correlation between CEO compensation and ATP. This research would encourage listed companies in China to implement corporate governance mechanisms and attentions on tax issues, this research offers new insights into how CEO managerial mechanism influence corporate tax strategies.

The contributions of this study are instructive to tax authorities and firms. This study shows that in non-state owned firms, although the practice of tax avoidance is still in the legal corridors, there are still signs of tax avoidance but if carried out over a long period of time, it may become an aggressive tax avoidance behaviour. CEO remuneration, firm size and the interaction effect of the two have an incentive effect on tax avoidance behaviour of firms. Therefore, this study provides inputs for tax authorities in implementing better tax regulations and enforcement to protect state revenues. For firms, Chinese firms should pay more attention to corporate governance mechanisms including CEO compensation and the introduction of future equity incentives, in order to standardize tax administration.

There are several limitations and recommendations that need to consider in this study. The first limitation pertains to the generalibility. The findings in this study are specific to the Chinese context. Therefore, they do not have a universal applicability on a global scale. Consequently, the results could not be directly generalized to other countries. A broader international study would be needed to produce findings that could be applied more widely across different regions. Second, future research should further explore the mechanisms that drive the associations between CEO compensation, firm size, and ATP. This could include qualitative methods such as case studies, interviews, or text analysis, providing a more in-depth perception of these dynamics. Additionally, examining the impact of other variables like ownership structure, legal environment, or industry characteristics could offer a more comprehensive perspective. This study offers the understanding of the link between CEO compensation and ATP, emphasizing the moderating role of firm size. These insights are valuable for policymakers and tax regulators in shaping effective tax practices and policies. This research expects to advance knowledge of the factors that affect tax aggressiveness, helping to develop more robust corporate tax policies and practices.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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References

- [1] C. Liua, Y. Chen, B. Lina, and J. Caoab, "Internal control and tax aggressiveness: Evidence from China," *Proceedings of 18th Asian Academic Accounting Association*, pp. 31-40, 2017.
- [2] J. L. Hoopes, P. T. Langetieg, E. L. Maydew, and M. S. Mullaney, "Are private firms more aggressive tax planners?," *The Accounting Review*, vol. 99, no. 4, pp. 197-223, 2024. <https://doi.org/10.2308/TAR-2020-0499>
- [3] Su, "Tax administration digitization and corporate tax avoidance: A quasi-natural experiment based on the golden tax iii project in China," 2023. <https://doi.org/10.21203/rs.3.rs-2736865/v1>
- [4] H. Jiang and E. Kim, "Characteristics of top management team and Chinese tax planning nexus: Findings from a fuzzy-set qualitative comparative analysis," *Front Psychol*, vol. 13, p. 964278, 2022. <https://doi.org/10.3389/fpsyg.2022.964278>
- [5] S. C. M. Leung, G. Richardson, and G. Taylor, "The effect of the general anti-avoidance rule on corporate tax avoidance in China," *Journal of Contemporary Accounting & Economics*, vol. 15, no. 1, pp. 105-117, 2019. <https://doi.org/10.1016/j.jcae.2018.12.005>
- [6] D. Dang, H. Fang, and M. He, "Economic policy uncertainty, tax quotas and corporate tax burden: Evidence from China," *China Economic Review*, vol. 56, 2019. <https://doi.org/10.1016/j.chieco.2019.101303>
- [7] T. Ying, B. Wright, and W. Huang, "Ownership structure and tax aggressiveness of Chinese listed companies," *International Journal of Accounting & Information Management*, vol. 25, no. 3, pp. 313-332, 2017. <https://doi.org/10.1108/ijaim-07-2016-0070>
- [8] R. Yonah and H. Xu, "China and BEPS," *Laws*, vol. 7, no. 1, 2018. <https://doi.org/10.3390/laws7010004>
- [9] H. Ordower, "Is aggressive tax planning a failure of tax adviser integrity?," *Journal of Financial Crime*, vol. 31, no. 4, pp. 837-848, 2024. <https://doi.org/10.1108/JFC-08-2023-0207>
- [10] X. Wenwu, M. U. Khurram, L. Qing, and A. Rafiq, "Management equity incentives and corporate tax avoidance: Moderating role of the internal control," *Front Psychol*, vol. 14, p. 1096674, 2023. <https://doi.org/10.3389/fpsyg.2023.1096674>
- [11] W. Yao, "Impact of executive compensation incentives on corporate tax avoidance," *Modern Economy*, vol. 12, no. 12, pp. 1817-1834, 2021. <https://doi.org/10.4236/me.2021.1212094>
- [12] H. L. James, "CEO age and tax planning," *Review of Financial Economics*, vol. 38, no. 2, pp. 275-299, 2020. <https://doi.org/10.1002/rfe.1072>
- [13] S. Jbir, S. Neifar, and Y. Makni Fourati, "CEO compensation, CEO attributes and tax aggressiveness: evidence from French firms listed on the CAC 40," *Journal of Financial Crime*, vol. 28, no. 4, pp. 1141-1160, 2021. <https://doi.org/10.1108/JFC-10-2020-0202>
- [14] A. Meidyawati, "The influence of CEO demography characteristics, profitability and the quality of external auditors on tax aggressiveness of family firm's.," *International Journal of Innovative Science and Research Technology*, vol. 8, no. 3, pp. 404-412, 2023.
- [15] M. W. S. S. Srimindarti, "The CEO characteristics factors toward tax aggressiveness of family companies in Indonesia," *Jurnal Akuntansi*, vol. 26, no. 1, 2022. <https://doi.org/10.24912/ja.v26i1.817>
- [16] Z. Xiao, R. He, Z. Lin, and H. Elkins, "CEO compensation in China," *Nankai Business Review International*, vol. 4, no. 4, pp. 309-328, 2013. <https://doi.org/10.1108/nbri-09-2013-0032>
- [17] J. Zhao, T. Chankoson, W. Cheng, and A. Pongtornkulpanich, "Executive compensation incentives, innovation openness and green innovation: evidence from China's heavily polluting enterprises," *European Journal of Innovation Management*, vol. 28, no. 2, pp. 372-402, 2025. <https://doi.org/10.1108/EJIM-01-2023-0064>
- [18] W. Huang, T. Ying, and Y. Shen, "Executive cash compensation and tax aggressiveness of Chinese firms," *Review of Quantitative Finance and Accounting*, vol. 51, no. 4, pp. 1151-1180, 2018. <https://doi.org/10.1007/s11156-018-0700-2>
- [19] A. Edmans, X. Gabaix, and D. Jenter, "Executive compensation: A survey of theory and evidence," *The handbook of the economics of corporate governance*, vol. 1, pp. 383-539, 2017.

- [20] A. Bouteska, A. D. Gupta, B. Boden, and M. Z. Abedin, "Who affects CEO compensation? Firm performance, ownership structure, and board diversity," *The Journal of High Technology Management Research*, vol. 35, no. 2, p. 100501, 2024. <https://doi.org/10.1016/j.hitech.2024.100501>
- [21] K. Wicaksono and R. M. Oktaviani, "Effect of CEO Characteristics Toward Tax Aggressiveness: Overview of Indonesia Family Firms," *Jurnal Ekonomi*, vol. 26, no. 2, pp. 189-205, 2021.
- [22] A. Vacca, A. Iazzi, D. Vrontis, and M. Fait, "The role of gender diversity on tax aggressiveness and corporate social responsibility: evidence from Italian listed companies," *Sustainability*, vol. 12, no. 5, p. 2007, 2020.
- [23] Y. Wang and J. Yao, "Impact of executive compensation incentives on corporate tax avoidance," *Modern Economy*, vol. 12, no. 12, pp. 1817-1834, 2021.
- [24] X. Ding, "The Influence of Different Executive Characteristics on Corporate Tax Avoidance," in Proceedings of the 2022 International Conference on Bigdata Blockchain and Economy Management (ICBBEM 2022), (Atlantis Highlights in Intelligent Systems, 2023), ch. Chapter 104, pp. 1055-1061.
- [25] K. H. Bae, Z. Gong, and W. H. Tong, "Restricting CEO pay backfires: Evidence from China," *Journal of Business Finance and Accounting*, vol. 51, no. 5-6, pp. 1015-1045, 2024. <https://doi.org/10.1111/jbfa.12741>
- [26] M. J. Conyon and L. He, "CEO Compensation and Corporate Governance in China," *Corporate Governance: An International Review*, vol. 20, no. 6, pp. 575-592, 2012. <https://doi.org/10.1111/j.1467-8683.2012.00935.x>
- [27] K. Li, T.-Y. Lin, and G. Zhu, "The effect of CEO's compensation in driving corporate ESG greenwashing: Evidence from China," *PloS one*, vol. 19, no. 10, p. e0312247, 2024. <https://doi.org/10.1371/journal.pone.0312247>
- [28] M.-L. Wu, "CEO salary, personal characteristics, and firm performance in chinese-listed firms: A cross-sectional econometric modeling approach," *Journal of Management, Economics, and Industrial Organization*, pp. 14-30, 2021. <https://doi.org/10.31039/jomeino.2021.5.3.2>
- [29] S. Chee, W. Choi, and J. E. Shin, "The non-linear relationship between CEO compensation incentives and corporate tax avoidance," *Journal of Applied Business Research (JABR)*, vol. 33, no. 3, pp. 439-450, 2017. <https://doi.org/10.19030/jabr.v33i3.9935>
- [30] C. S. Armstrong, J. L. Blouin, and D. F. Larcker, "The incentives for tax planning," *Journal of Accounting and Economics*, vol. 53, no. 1-2, pp. 391-411, 2012. <https://doi.org/10.1016/j.jacceco.2011.04.001>
- [31] Y. Tang, Y. Liu, J. Liu, and W. Li, "Does more managerial power impede or promote corporate tax avoidance? Evidence from listed Chinese companies," *Sustainability*, vol. 11, no. 7, 2019. <https://doi.org/10.3390/su11071914>
- [32] A. Sihono and A. Munandar, "Moderating effect of audit quality: the case of political connection, executive compensation and tax aggressiveness," *Jurnal Ekonomi Modernisasi*, vol. 19, no. 1, pp. 15-30, 2023.
- [33] H. Luo and Y. Zeng, "On executive pay bandwagon and corporate tax avoidance," *Journal of Zhongnan University of Economics and Law*, vol. 31, pp. 3-13, 2018.
- [34] A. H. Saragih and A. Hendrawan, "The moderating role of firm size on the association between managerial ability and tax avoidance," *Jurnal ASET*, vol. 13, no. 1, 2021.
- [35] X. Chen, N. Hu, X. Wang, and X. Tang, "Tax avoidance and firm value: evidence from China," *Nankai Business Review International*, vol. 5, no. 1, pp. 25-42, 2014. <https://doi.org/10.1108/nbri-10-2013-0037>
- [36] X. Liu and S. Cao, "Determinants of Corporate Effective Tax Rates: Evidence from Listed Companies in China," *The Chinese Economy*, vol. 40, no. 6, pp. 49-67, 2014. <https://doi.org/10.2753/ces1097-1475400603>
- [37] Y. Lu and Y. Cao, "The individual characteristics of board members and internal control weakness: Evidence from China," *Pacific-Basin Finance Journal*, vol. 51, pp. 75-94, 2018. <https://doi.org/10.1016/j.pacfin.2018.05.013>
- [38] L. Meng and Y. Zhang, "Impact of tax administration on esg performance—a quasi-natural experiment based on china's golden tax project iii," *Sustainability*, vol. 15, no. 14, p. 10946, 2023. <https://doi.org/10.3390/su151410946>
- [39] J. J. Siegfried, *The relationship between economic structure and the effect of political influence: Empirical evidence from the federal corporation income tax program*. The University of Wisconsin-Madison, 1972.
- [40] E. Ehima and O. Nosa, "TAX AGGRESSIVENESS: POLITICAL COST THEORY OR POLITICAL POWER THEORY?," *Journal of Academic Research in Economics*, vol. 16, no. 3, 2024.
- [41] G. Yuan, McIver, R., & Burrow, M., "CORPORATE INCOME TAX AGGRESSIVENESS IN CHINA: REGULATORY ENVIRONMENT AND OWNERSHIP IMPACT," *Journal of Business Management*, vol. 5(Special Edition). 2012.
- [42] S. O. Rego, "Tax-avoidance activities of US multinational corporations," *Contemporary Accounting Research*, vol. 20, no. 4, pp. 805-833, 2003. <https://doi.org/10.1506/VANN-B7UB-GMFA-9E6W>
- [43] M. S. Hossain, M. S. Ali, M. Z. Islam, C. C. Ling, and C. Y. Fung, "Nexus between profitability, firm size and leverage and tax avoidance: evidence from an emerging economy," *Asian Review of Accounting*, vol. 32, no. 5, pp. 759-780, 2024. <https://doi.org/10.1108/ARA-08-2023-0238>
- [44] A. A. Sarhan, "Corporate social responsibility and tax avoidance: the effect of shareholding structure—evidence from the UK," *International Journal of Disclosure and Governance*, vol. 21, no. 1, pp. 1-15, 2024. <https://doi.org/10.1057/s41310-023-00172-w>

- [45] D. I. Syahfitri, R. M. Rizqi, and A. Z. Akbar, "The effect of executive compensation and institutional ownership on tax aggressive actions with firm size as an intervening variable," *Enrichment: Journal of Management*, vol. 13, no. 2, pp. 1102-1108, 2023.
- [46] M.-L. Chang, D.-F. Huang, C.-C. Ting, and H.-S. Chang, "Gender, Political Connection, and Tax Avoidance in China," *Theoretical Economics Letters*, vol. 09, no. 08, pp. 2839-2863, 2019. <https://doi.org/10.4236/tel.2019.98178>
- [47] X. Liu, M. Li, J. Y. Tong, and F. Zhang, "CFO gender and tax aggressiveness: Evidence from China," *Pacific-Basin Finance Journal*, vol. 71, 2022. <https://doi.org/10.1016/j.pacfin.2021.101679>
- [48] F. Cao, S. Li, M. Dai, and J. Li, "Your heart is where your treasure is: Family chairman and tax avoidance in family-controlled firms," *Journal of Business Research*, vol. 154, 2023. <https://doi.org/10.1016/j.jbusres.2022.09.003>
- [49] X. Wu and P. Hąbek, "Trends in corporate social responsibility reporting: The case of Chinese listed companies," *Sustainability*, vol. 13, no. 15, p. 8640, 2021.
- [50] X. Jin, "Corporate tax aggressiveness and capital structure decisions: Evidence from China," *International Review of Economics & Finance*, vol. 75, pp. 94-111, 2021. <https://doi.org/10.1016/j.iref.2021.04.008>
- [51] D. M. D. S. Pebriyanti, A. Firmansyah, S. Wijaya, and F. Irawan, "The CEO's foreign experience and the CEO's share ownership: Does tax aggressiveness matter?," *Journal of Governance and Regulation*, vol. 11, no. 1, pp. 8-19, 2022. <https://doi.org/10.22495/jgrv11i1art1>
- [52] S. Assidi, O. A. Farooque, and K. Albitar, "The nexus between aggressive tax planning and earnings management in different political systems and the moderating role of corporate governance," *International Journal of Managerial and Financial Accounting*, vol. 14, no. 4, 2022. <https://doi.org/10.1504/ijmfa.2022.126559>
- [53] Y. Cao, Z. Feng, M. Lu, and Y. Shan, "Tax avoidance and firm risk: evidence from China," *Accounting & Finance*, vol. 61, no. 3, pp. 4967-5000, 2021. <https://doi.org/10.1111/acfi.12769>
- [54] E. H. Kim and Y. Lu, "CEO ownership, external governance, and risk-taking," *Journal of Financial Economics*, vol. 102, no. 2, pp. 272-292, 2011. <https://doi.org/10.1016/j.jfineco.2011.07.002>
- [55] H. Zhou, H. Chen, and Z. Cheng, "Internal control, corporate life cycle, and firm performance," in *The Political Economy of Chinese Finance*, (International Finance Review, 2016, pp. 189-209.
- [56] K. Su, B. Li, and C. Ma, "Corporate dispersion and tax avoidance," *Chinese Management Studies*, vol. 13, no. 3, pp. 706-732, 2019. <https://doi.org/10.1108/cms-04-2018-0497>
- [57] Y.-C. Lin, Y.-C. Wang, J.-R. Chiou, and H.-W. Huang, "CEO characteristics and internal control quality," *Corporate Governance: An International Review*, vol. 22, no. 1, pp. 24-42, 2014. <https://doi.org/10.1111/corg.12042>
- [58] K. J. Lin, X. Lu, J. Zhang, and Y. Zheng, "State-owned enterprises in China: A review of 40 years of research and practice," *China Journal of Accounting Research*, vol. 13, no. 1, pp. 31-55, 2020. [10.1016/j.cjar.2019.12.001](https://doi.org/10.1016/j.cjar.2019.12.001)
- [59] R. Lanis and G. Richardson, "Corporate social responsibility and tax aggressiveness: a test of legitimacy theory," *Accounting, Auditing & Accountability Journal*, vol. 26, no. 1, pp. 75-100, 2012. <https://doi.org/10.1108/09513571311285621>
- [60] W. Lv, Q. Meng, Y. Cao, and J. Liu, "Impact and moderating mechanism of corporate tax avoidance on firm value from the perspective of corporate governance," *International Review of Financial Analysis*, vol. 99, p. 103926, 2025. <https://doi.org/10.1016/j.irfa.2025.103926>
- [61] Yuan, Y. Li, and T. Hu, "Does corporate donation lead to more tax aggressiveness?," *China Economic Quarterly International*, vol. 2, no. 1, pp. 29-41, 2022. <https://doi.org/10.1016/j.ceqi.2022.02.002>
- [62] G. Richardson, B. Wang, and X. Zhang, "Ownership structure and corporate tax avoidance: Evidence from publicly listed private firms in China," *Journal of Contemporary Accounting & Economics*, vol. 12, no. 2, pp. 141-158, 2016. <https://doi.org/10.1016/j.jcae.2016.06.003>
- [63] M. Chen and G. Ye, "Multiple large shareholders, related-party transactions and accounting conservatism," *Finance Research Letters*, vol. 74, p. 106714, 2025. <https://doi.org/10.1016/j.frl.2024.106714>
- [64] S. O. Rego and R. Wilson, "Executive compensation, tax reporting aggressiveness, and future firm performance," *Research Gate*, 2009.
- [65] F. Jihene and D. Moez, "The moderating effect of audit quality on CEO compensation and tax avoidance: Evidence from Tunisian context," *International Journal of Economics and Financial Issues*, vol. 9, no. 1, p. 131, 2019.
- [66] Y. Zhou, "Ownership structure, board characteristics, and tax aggressiveness," 2011. https://doi.org/10.14793/acct_etd.3
- [67] W. Wen, H. Cui, and Y. Ke, "Directors with foreign experience and corporate tax avoidance," *Journal of Corporate Finance*, vol. 62, 2020. <https://doi.org/10.1016/j.jcorpfin.2020.101624>
- [68] Z. Balkish and S. Jamaliah, "Do Foreign Ownership, Executive Incentives, Corporate Social Responsibility Activity and Audit Quality Affect Corporate Tax Avoidance?," *Indian Journal of Corporate Governance*, 2024. <https://doi.org/10.1177/09746862231205648>
- [69] Chan, P. L. L. Mo, A. Y. Zhou, and S. Cahan, "Government ownership, corporate governance and tax aggressiveness: evidence from China," *Accounting & Finance*, vol. 53, no. 4, pp. 1029-1051, 2013. <https://doi.org/10.1111/acfi.12043>
- [70] C. Wang, G. Richardson, and Y. Cao, "Long live the walking dead? Corporate tax avoidance and zombie firms in China," *The British Accounting Review*, vol. 56, no. 3, p. 101319, 2024. <https://doi.org/10.1016/j.bar.2024.101319>

- [71] G. He and D. Shen, "The impact of superstition on corporate tax avoidance: how do CEOs trade off risks associated with tax avoidance?," *Journal of Accounting Literature*, 2024. <https://doi.org/10.1108/JAL-02-2024-0020>