# Merge Tax Administration and Corporate Tax Evasion——Discussion on the Merger of National Taxation Bureau and Local Taxation Bureau

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**Abstract.** Utilizing data extracted from Chinese A-share listed companies during the period from 2013 to 2021, this study employs the merging of national taxation bureau and local taxation bureau as a quasi-natural experiment. Applying the Difference-in-Differences (DID) methodology, we explore the influence of the consolidated tax administration on corporate tax avoidance and perform rigorous validation tests. Empirical findings indicate that the integration of national and local tax bureaus can improve the transparency of tax source information, significantly reduce the extent of corporate tax evasion. This research enriches our understanding of the microeconomic effects of the consolidation of national and local tax bureaus, offering new empirical evidence to support further reforms in tax administration.

**Keywords:** Tax Administration, the Merger of National Taxation Bureau and Local Taxation Bureau, Corporate Tax Evasion.

## 1 Introduction

Finance constitutes the cornerstone and essential support of national governance. Strengthening financial security is an inherent requirement for enhancing the capacity of national governance. However, the widespread phenomenon of corporate tax evasion has led to substantial tax losses. In theory, tax authorities are the main departments responsible for tax administration, but local tax authorities are often influenced by the will of local governments in the execution of tax administration tasks. Local governments, aiming to attract investments, often engage in conspicuous tax competition, encouraging collusion among enterprises to evade taxes, leading to substantial revenue losses. Over the years, optimizing the tax administration system, improving management efficiency, and ensuring the "collect all that is due" of national tax revenue have been focal points of reform in the fiscal and taxation domain. In 2018, the 13th National People's Congress deliberated and approved the "Decision on the Plan for State Council Institutional Reform," merging the state and local tax institutions at the provincial level and below. This resulted in a dual leadership and management system with the State Administration of Taxation taking the lead and reporting to the provincial (autonomous region, municipal) people's government. From the perspective of the management system, the post-merger tax authorities are closer in terms of power division to the former national tax bureau. The merging of the national and local tax authorities not only standardizes tax enforcement, reducing the interference of local governments in tax administration, but also achieves

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multidimensional integration of enterprise information, alleviating the challenge of information asymmetry between tax authorities and taxpayers during the administration process. Based on the above logic, it can be anticipated that this tax administration reform effectively enhances efficiency, and at the micro level, is expected to regulate the tax behavior of enterprises.

When investigating corporate tax evasion, existing literature has primarily explored the issue from the perspective of internal motives within enterprises. Companies can effectively increase cash flow and retain earnings through tax avoidance activities (Zhang et al., 2018), especially when facing financial constraints, intensifying their motivation for tax evasion (Liu & Ye, 2014)[1][2]. Simultaneously, numerous empirical studies have delved into governance strategies for tax evasion. Early research predominantly focused on obtaining information by strengthening tax audits on businesses (Tian et al., 2021)[3]. In recent years, with advancements in tax administration technology, research indicates that improving access to third-party tax information can alleviate information imbalances between tax authorities and taxpayers, ultimately enhancing tax administration efficiency. Zhang et al. (2020) argued that advancements in information monitoring technology can effectively shrink the space for corporate tax evasion and reduce its extent[4]. Fan et al. (2022) conducted research to explore the tangible effects of the decentralization of tax administration. The focus was on its impact on corporate tax avoidance[5]. They found that the merge of national and local tax bureaus improved the information asymmetry among tax authorities and taxpayers, and the strengthened independence of tax administration disrupted previous collusion between tax authorities and taxpayers, thereby standardizing corporate tax behavior. Although the above literature provides in-depth analyses of corporate tax evasion from various perspectives, there is a relative lack of research and analysis originating from the organizational structure of tax authorities themselves. This paper attempts to address this gap by examining the influence of merged tax administration on corporate tax evasion, starting from the organizational structure of tax authorities, using the Difference-in-Differences method.

## 2 Research Design

### 2.1 Sample Selection

The research utilizes a dataset comprising Chinese A-share listed companies spanning from 2013 to 2021.The dataset is subjected to the following procedures: (1) exclusion of ST and *ST samples; (2) exclusion of financial sector samples; (3) omission of companies listed in 2018 or subsequent years;(4) The main continuous variable is truncated at the 1st and 99th percentiles. Following these procedures, a final dataset comprising 19687 observations is obtained. This study extracts all data from the Guotai An Database (CSMAR).

### 2.2 Variable Definitions

#### 2.2.1 Dependent Variable

The measurement of tax avoidance indicators generally falls into two categories: one method involves the utilization of the effective corporate income tax rate and its modification. The other involves applying accounting-based tax differences and their modification. This study adopts the practice of Ye KT and Liu X (2014) by utilizing Book-Tax Differences (BTD) to characterize the extent of corporate tax evasion[6]. Concretely, the calculation of BTD involves dividing the difference between pre-tax accounting profit and taxable income by the year-end total assets. The prevailing income tax expense divided by the nominal income tax rate defines taxable income. A greater BTD (Book-Tax Difference) signifies a more notable disparity between accounting profit and taxable income, indicating an increased probability of the company being involved in tax evasion practices.

### 2.2.2 Independent Variable

The explanatory variable, "Merged" is a dummy variable representing the merger of the national and the local taxation bureaus. Drawing inspiration from the approach of Fan ZY et al. (2022), when a company paid income tax to the local tax bureau before the merger of national and local tax bureaus, assign a value of 1 to "Treat"; otherwise, assign a value of 0[5]. Similarly, when the time is in 2018 or later, assign a value of 1 to "Post"; otherwise, assign a value of 0. The interaction between the "Treat" and "Post" variables corresponds to the variable "Merged".

### 2.2.3 Control Variables

Drawing on the studies of Wang SH et al. (2023), Zhao YJ et al. (2023), and Sun XJ et al. (2016), the following variables are controlled for: company size (Size), profitability (Roa), proportion of fixed assets (Fixed), financial leverage (Lev), corporate cash flow (Cashflow), audit quality (Big4), and board independence (Indep). Table1 provides the definitions of the key variables[7][8][9].

**Table 1.** Explanation of Control Variables

| | |
|---|---|
| Size | The logarithm of total assets |
| Roa | Net profit / total assets |
| Fixed | Fixed assets / total assets |
| Lev | Total liabilities / total assets |
| Cashflow | Net cash flow / total assets from operating activities |
| Big4 | Dummy variable, coded as 1 for "Big 4" audit, and 0 otherwise. |
| Indep | The proportion of independent directors in relation to the total board size. |

## 2.3 Model Design

To assess whether the merge of National Taxation Bureau and Local Taxation Bureau reduces the extent of corporate tax evasion, the approach of Fan ZY et al. is followed in this study (2022)[5], and constructs the following Difference-in-Differences model:

$$\mathrm{BTD}_{it} = \beta_0 + \beta_1 \mathrm{Merged}_{it} + \Sigma\beta_n \mathrm{Control}_{it} + \Sigma\mathrm{Firm} + \Sigma\mathrm{Year} + \varepsilon_{it} \quad (1)$$

Here, the subscript "i" denotes the firm, and "t" represents the year. "BTD" is the dependent variable, indicating the degree of corporate tax avoidance, where a larger value indicates a higher level of tax evasion. "Merged" is the explanatory variable, representing the virtual variable for the consolidation of national taxation bureau and local taxation bureau. "Control" signifies a set of control variables. Individual fixed effects and time fixed effects are denoted by "Firm" and "Year". And ε is the residual term. The main focus of this study is on the coefficient of "Merged". If $\beta_1$ is negatively significant, it implies that the merge of national and local tax bureaus reduces corporate tax avoidance.

# 3 Empirical Results Analysis

## 3.1 Descriptive Statistics

Table 2 displays the descriptive statistics for the key variables examined in this research. The mean tax avoidance level for companies is 0.001, with a standard deviation of 0.025, aligning closely with existing literature. The mean value of "Treat" is 0.621. This suggests that 62.1% of the companies in the sample belong to the treatment group.

**Table 2.** Descriptive Statistics of Main Variables

| Variable | N | Mean | SD | Min | Max |
|---|---|---|---|---|---|
| BTD | 19687 | 0.001 | 0.025 | -0.068 | 0.088 |
| Treat | 19687 | 0.621 | 0.485 | 0 | 1 |
| Post | 19687 | 0.475 | 0.499 | 0 | 1 |
| Size | 19687 | 22.32 | 1.328 | 20.07 | 26.41 |
| Roa | 18922 | 0.056 | 0.044 | -0.014 | 0.218 |
| Fixed | 19687 | 0.206 | 0.154 | 0.002 | 0.678 |
| Lev | 19687 | 0.405 | 0.193 | 0.061 | 0.866 |
| Cashflow | 19687 | 0.055 | 0.065 | -0.134 | 0.238 |
| Big4 | 19662 | 0.061 | 0.240 | 0 | 1 |
| Indep | 19686 | 37.63 | 5.345 | 33.33 | 57.14 |

## 3.2 Baseline Regression Results

The columns 1,2,3 of Table 3 show the regression results of Formula 1. In column (1), individual-specific and time-specific fixed effects are taken into account, and the estimated coefficient for the interaction term (Merged) is -0.001, showing statistical significance at the 10% level. This implies a significant reduction in the extent of tax evasion for companies after experiencing the policy impact. In column (2), additional control for various factors influencing the extent of tax evasion is implemented. The estimated coefficient for the interaction term (Merged) is -0.002, significant at the 1% level, and the fitting degree of the regression model has been improved. In conclusion, the implementation of the national and local tax bureaus consolidation policy significantly reduces corporate tax avoidance behaviors.

**Table 3.** Regression Results

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | BTD | BTD | BTD | OPAQUE |
| Merged | -0.001* | -0.002*** | -0.002*** | -0.001* |
| | (-1.771) | (-3.879) | (-3.871) | (-1.900) |
| Size | | 0.000 | 0.000 | -0.005*** |
| | | (0.613) | (0.590) | (-5.876) |
| Roa | | 0.240*** | 0.241*** | 0.074*** |
| | | (29.828) | (29.855) | (8.815) |
| Fixed | | 0.008*** | 0.008*** | -0.013*** |
| | | (2.974) | (2.961) | (-3.719) |

| | | | | |
|---|---|---|---|---|
| Lev | | -0.011*** | -0.011*** | 0.003 |
| | | (-5.094) | (-5.090) | (1.082) |
| Cashflow | | -0.018*** | -0.018*** | 0.001 |
| | | (-5.458) | (-5.427) | (0.339) |
| Big4 | | 0.003* | 0.003* | 0.005*** |
| | | (1.767) | (1.769) | (2.988) |
| Indep | | -0.000 | -0.000 | -0.000 |
| | | (-0.510) | (-0.505) | (-1.433) |
| Policy | | | 0.002* | |
| | | | (1.814) | |
| _cons | 0.001*** | -0.015 | -0.016 | 0.136*** |
| | (5.484) | (-1.186) | (-1.262) | (7.816) |
| Year Fe | Yes | Yes | Yes | Yes |
| Firm Fe | Yes | Yes | Yes | Yes |
| N | 19682.000 | 18877.000 | 18877.000 | 12179.000 |
| R2 | 0.494 | 0.562 | 0.562 | 0.603 |

Note: Values in parentheses represent t-statistics; and *, **, and *** denote significance levels at 1%, 5%, and 10%, respectively.

### 3.3 Robustness Tests

Having established that the merge of national and local tax bureaus reduces corporate tax avoidance, this study conducts robustness tests from the perspectives of parallel trends, placebo tests and excluding other policy interferences.

#### 3.3.1 Parallel Trends Test

To assess the impact of consolidating national and local tax bureaus on corporate tax avoidance using the DID method, it is crucial to meet the parallel trends assumption (Roberts and Whited, 2013)[10]. This assumption posits that, before the implementation of the merger of national and local taxation bureaus consolidation policy, the trends in tax avoidance changes are consistent for both the treatment group and the control group. To examine this, the study employs event study methodology to conduct a parallel trends test on the tax avoidance levels of the treatment group and the control group before the implementation of the national and local tax bureaus consolidation. Fig. 1 illustrates the parallel trends and dynamic results. It is evident that the coefficients of the interaction term for pre_4-pre_1 are not significant, indicated by the 95% confidence intervals of the coefficients around zero for each year. This observation confirms the presence of parallel trends. Concurrently, the decreasing trend in the interaction term for current-las_3 suggests that, after the consolidation of national and local taxation in 2018, the administrative effect gradually takes effect, leading to a reduction in corporate tax avoidance behaviors.

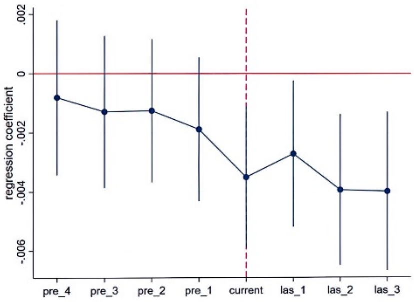


**Fig. 1.** Parallel Trends Test

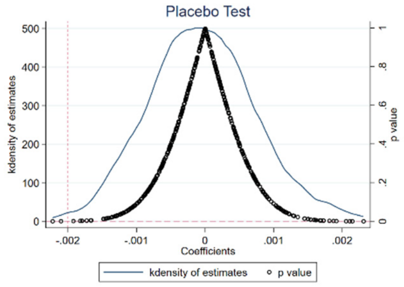


**Fig. 2.** Placebo Test

### 3.3.2 Placebo Test

Another concern in the methodology employed in this study is whether the observed effect of the implementation of the national and local tax bureaus consolidation policy on corporate tax avoidance is an economic consequence of other concurrent or recent macroeconomic policies, rendering the study conclusions incidental or random. To tackle this issue, the study conducts a placebo test using the method outlined by Chetty et al. (2009)[11]. Specifically, random numbers are generated by a computer to randomly sample and generate lists of companies for both the treatment and control groups involved in the national and local tax bureaus consolidation. This process is repeated 500 times. The findings, illustrated in Fig. 2, demonstrate that the regression coefficients and p-values from the random simulations are centered around zero, indicating that the estimated coefficients are not significant. This suggests that the regression results in this study are not incidental or random, affirming that the alterations in corporate tax evasion behavior are indeed caused by the implementation of the national and local tax bureaus consolidation policy rather than other factors.

### 3.3.3 Mitigation of Other Policy Interferences

Given the potential impact of other factors closely related to the effects of the national and local tax bureaus consolidation, which could affect the baseline regression results, it is necessary to control for other relevant events and policies. In 2013, the "Golden Tax Phase III" plan began as a pilot program in some provinces, applying information technology to subject businesses to more stringent information monitoring and scrutiny, significantly influencing their tax compliance. To account for the impact of the "Golden Tax Phase III" on the results, this study introduces a policy variable in column (3), denoted as "Golden Tax Phase III" (Policy). If a company is in a pilot province for "Golden Tax Phase III," the policy variable is assigned a value of 1; otherwise, it is 0. It can be observed that the estimated coefficient for Merged is -0.002, significant at the 1% level, indicating that even after controlling for the "Golden Tax Phase III" policy, the conclusions of the baseline regression remain valid.

## 3.4 Examination of mechanism of action

The combination of national and local taxes unifies the information sources of tax authorities, which is convenient for tax authorities to fully grasp the tax information of taxpayers. It promotes the mutual verification of tax information of different taxes and different calibers, improves the transparency of tax source information, and thus inhibits corporate tax avoidance. This paper draws on the research methods of Zhao Yujie and Sun Xuejiao ( 2023 ), and uses the DD model to calculate the absolute value of earnings quality ( OPAQUE ) to measure the transparency of tax source information[8]. The larger the value, the lower the transparency of tax source information. As shown in column 4 of table 3, Merged 's regression coefficient is significantly negative at the 10 % level, indicating that the merger of national and local taxes can effectively improve the transparency of tax source information.

## 4 Conclusion and Policy Recommendations

This study investigates the influence of the restructuring of the national and local tax administration system on corporate tax avoidance, utilizing Chinese A-share listed companies spanning from 2013 to 2021. It utilizes the Difference-in-Differences method as a quasi-natural experiment to examine the consequences of this policy on corporate tax avoidance conduct. The findings of this research indicate that: (1) The combination of national and local taxes can reduce corporate tax evasion and regulate corporate tax payment behavior by improving the transparency of tax source information. (2) Robustness tests, including parallel trends, placebo tests and mitigation of Other Policy Interferences, validate the robustness of the baseline regression findings. This study contributes novel empirical evidence to the understanding of the influence of tax administration on corporate tax evasion. It provides a basis for decision-making in the current phase of deepening tax reform, regulating tax management activities, and mitigating corporate tax evasion.

This paper proposes relevant policy recommendations to optimize the tax management system and reduce corporate tax evasion: (1) To avoid adverse competition among local governments, the central government should enhance and refine the performance assessment of government officials, establishing long-term criteria for performance evaluation. Simultaneously, the central government should strike a balance between centralized management and the fiscal autonomy of local governments. It should support and encourage local governments to develop tax categories that sustain local finances, guiding them to attract external investments by optimizing the business environment. (2) Tax authorities should enhance their technical capabilities in tax administration and improve information-sharing management systems to mitigate the negative effects arising from information asymmetry between tax authorities and businesses. This will increase the difficulty for businesses to engage in tax avoidance. (3) Businesses should stay informed about the latest government tax administration policies, reducing the risk of penalties for violating tax regulations. Additionally, companies should advance talent development, enhance talent management, elevate internal control management standards, and constrain tax avoidance behaviors within the organization.

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