



Tax authority independence and earnings management

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ABSTRACT

This study investigates how tax authority independence affects corporate earnings management. We employ a difference-in-differences approach and find that increased tax authority independence significantly reduces earnings management, particularly for firms engaging in downward earnings management. Additionally, we observe that this negative correlation is influenced by factors such as ownership structure, political connections, audit quality, and legal environment. Furthermore, we demonstrate that enhanced tax enforcement and corporate governance serve as channels through which the independence of tax authorities mitigates earnings manipulation.

1. Introduction

Earnings management determinants have been a focal point in accounting research for decades. Extensive literature has examined a range of internal and external factors that influence earnings management. Internal factors include firm characteristics (DeFond and Park, 1997; Balsam et al., 1995; Penman and Zhang, 2002) and corporate governance (Beasley, 1996; Abbott et al., 2004; Kim and Yi, 2006; Schrand and Wong, 2003). External factors span capital requirements, political processes, and tax regulations (Monem, 2003; Choi et al., 2001; Phillips et al., 2003; Chen et al., 2008; Van Tendeloo and Vanstraelen, 2008). Despite this rich literature, a key stakeholder common to all firms, the government, is often overlooked in corporate governance analyses (Desai and Dharmapala, 2009). This omission is important given the crucial role that corporate taxes play in shaping firm financial and investment decisions (Graham, 2003). Within this context, the influence of government, particularly through tax authorities, merits further attention.

Tax authorities have strong incentives to ascertain firms' true profits, thereby deterring managers from diverting wealth (Desai et al., 2007). This perspective highlights the dual role of tax authorities, as both fiscal revenue collectors and as governance actors capable of constraining earnings management. However, research in this domain remains limited, partly due to the inherent difficulty in measuring tax authority influence. Existing studies often use proxies such as tax enforcement to examine its effects on financial earnings responsiveness (Zhao, 2023), financial irregularities (Feng et al., 2023a), misstatements (Li and Ma, 2021), and reporting quality (Hanlon et al., 2014). Our study extends this literature by directly assessing the government's role as a key stakeholder and evaluating its influence on corporate behaviour through tax authorities as specific government units. We focus specifically on tax authority independence as a critical antecedent of tax enforcement and its implications for earnings management. Additionally, we investigate the underlying mechanisms through which tax authority independence mitigates earnings management.

We take advantage of the consolidation of national and local tax authorities in China as a quasi-natural experiment, applying a

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difference-in-differences (DiD) approach to investigate whether tax authority independence inhibits earnings management. Before the merger, local tax authorities operated under the jurisdiction of local governments, which often led to interference in tax collection processes. The consolidation has significantly reduced such interference and diminished political influence, thereby enhancing tax authority independence. We posit that tax authority independence constrains earnings management. First, tax authority independence deters local government intervention in tax enforcement (Liu et al., 2022), leading to stricter regulatory oversight and higher costs for firms engaging in earnings management. Second, a unified tax-collection agency mitigates information asymmetry by centralising tax-related data. This centralisation enhances the transparency and consistency of financial information, making it more difficult for firms to manipulate earnings without detection.

Employing data from Chinese listed firms over the period 2010–2021, we find that increased tax authority independence reduces firms' earnings management. This inhibitory effect is more pronounced in firms engaging in downward earnings management. Additional analyses reveal that the constraining effect of tax authority independence on earnings management is stronger in non-state-owned enterprises (non-SOEs), firms without political connections, those audited by non-Big-4 auditors, and firms headquartered in regions with weak legal environments. Furthermore, our findings demonstrate that tax authority independence enhances tax enforcement and strengthens corporate governance, which ultimately results in a decrease in earnings management. Our results are robust across a batch of sensitivity tests, including propensity score matching difference-in-differences (PSM-DiD), placebo tests, controls for contemporaneous shocks, alternative measures for earnings management, temporal advancement of explanatory variables, various standard error clustering methods, and alternative fixed effects specifications to account for time-varying industry and regional characteristics. Importantly, our main results remain unchanged after these tests.

Our study makes several key contributions to the literature. First, it enriches the literature on the determinants of earnings management. While prior research has extensively examined firm-level characteristics (e.g., DeFond and Park, 1997; Balsam et al., 1995; Penman and Zhang, 2002; Beasley, 1996; Abbott et al., 2004; Kim and Yi, 2006; Schrand and Wong, 2003), the role of government remains underexplored. Existing studies that consider the government's influence tend to focus on tax enforcement and its effect on corporate earnings management (e.g., Desai et al., 2007; Hanlon et al., 2014; Li and Ma, 2021; Zhao, 2023). In contrast, our study directly assesses government influence by examining the independence of tax authorities as a specific government unit. We utilise a tax-collection reform, the merger of national and local tax authorities, to investigate this relationship. Our study offers a novel perspective by highlighting that tax authority independence serves as a precursor to tax enforcement. This independence, marked by reduced local government intervention, strengthens both the intensity and independence of tax enforcement, ultimately reducing corporate earnings management.

Second, this study advances the literature on the role of taxation in shaping corporate behaviour by examining how tax-collection reform affects financial reporting quality. Previous studies have examined the impact of tax policies and enforcement on investment and financing decisions (e.g., Liu and Mao, 2019; Djankov et al., 2011; Liu et al., 2022; El Ghouli et al., 2011); firm risk-taking (e.g., Cullen and Gordon, 2007); stock price crash risk (Xu et al., 2023); capital structure (e.g., Li et al., 2016), corporate social responsibility (Wang et al., 2023), innovation (e.g., Chen et al., 2021), internal control (Tang et al., 2024); earnings and information disclosure quality (e.g., Desai and Dharmapala, 2009; Hanlon et al., 2014; Ye et al., 2023). However, the role of tax collection reforms in earnings management remains underexplored. This study addresses this gap by examining how tax authority independence, driven by tax collection reforms, influences earnings management. We argue that greater independence not only enhances tax enforcement but also strengthens corporate governance, thereby curbing earnings manipulation.

Third, this study establishes a causal relationship between tax authority independence and earnings management within the unique context of China. Previous studies use tax enforcement to quantify the influence of tax authorities; however, this commonly used measure faces endogeneity issues due to its correlation with unobserved confounding factors (Gallemore and Jacob, 2020). To address this issue, we employ a merger of national and local authorities as an exogenous event shock to provide compelling evidence that tax authority independence affects earnings management. This finding carries significant policy implications, suggesting that greater tax authority independence effectively enhances the information disclosure environment. The governance function of tax authorities is especially important in emerging markets, where institutional independence is limited and corporate governance mechanisms are relatively weak.

The remainder of this paper is structured as follows. Section 2 provides the institutional background of the study, reviews related literature and develops the hypothesis. Section 3 describes the data and methods. The main results are presented in Section 4, followed by further analyses and mechanism tests in Section 5. Section 6 presents robustness tests. Section 7 concludes the study.

2. Institutional background, literature and hypothesis development

2.1. Institutional background

Before 1994, the central government relied on local governments for tax collection, with tax revenue allocated according to predetermined sharing agreements (Liu et al., 2022). Because the tax system was administered primarily by local governments, the central government faced substantial challenges in monitoring tax collection. Consequently, local governments often sought to boost their share of tax revenue by diverting budgetary funds into extra-budgetary revenue, which in turn reduced the central government's fiscal revenue.

In 1994, the central government implemented tax-sharing reform, classifying taxes into three types: central taxes (e.g., customs duties and corporate income tax from central-government-owned firms), local taxes (e.g., business tax, personal income tax, property tax, and corporate income tax from non-central-government-owned firms), and shared taxes (value-added taxes and resource tax), with

revenues distributed between central and local governments. This reform also established a dual tax authority system, dividing tax collection responsibilities between the national tax bureaus (Guoshuiju) and local tax bureaus (Dishuiju).

National tax bureaus operated under direct supervision from upper-level national tax bureaus and functioned independently of local governments, with responsibilities for collecting central and shared taxes. In contrast, local tax bureaus, established across provincial, municipal, county, and district levels, managed tax collection within a jurisdictional framework that granted local governments full control over local affairs, including tax administration. Given that local officials' career advancement depended heavily on regional economic growth (Li and Zhou, 2005; Zuo, 2015), local governments faced strong incentives to reduce corporate tax burdens by relaxing tax enforcement (Li and Ma, 2021). This situation arose from China's highly centralised tax authority structure, in which the central government retained exclusive control over tax legislation and exemptions. In response, local governments strategically eased tax enforcement to lower effective tax rates for local firms. This led to substantial regional variations in the ways taxes were enforced and collected across China. A firm's actual tax burden therefore largely depended on the diligence of local tax officials and their relationships with individual firms (Cai et al., 2011).

This arrangement persisted until 2017, when national and local tax authorities were merged into a unified taxation body under the supervision of the State Administration of Taxation, accountable directly to the central government. The merger has significantly reduced local government interference in tax collection, thereby enhancing the independence and effectiveness of tax authorities. It has also facilitated better exchange of tax-related information, mitigating information asymmetry between tax collectors and taxpayers, and improving overall tax collection efficiency. It is worth noting that the merger affects only the agency responsible for collecting corporate income tax, creating a quasi-natural experiment to examine the effect of tax authority independence on earnings management.

2.2. Related literature and hypothesis development

Extensive research on earnings management suggests that strong corporate governance acts as an internal control mechanism that constrains managerial discretion over earnings manipulation. Empirical studies have linked earnings management to various factors, including board independence, audit committee quality, ownership structure, internal controls, and managerial ownership (e.g., Davidson et al., 2005; Klein, 2002; Gul et al., 2002; Larcker and Richardson, 2004; Kim and Yi, 2006; Krishnan, 2005).

Beyond the abovementioned firm-level characteristics, the literature also highlights taxes as an external governance mechanism that can curb earnings management (Desai et al., 2007; Xu et al., 2011), underlining the critical role of corporate taxation in financing and investment decisions (Graham, 2003). Desai et al. (2007) argue that tax authorities and external shareholders have similar incentives to limit managerial rent diversions. Specifically, tax authority audits typically involve thorough examinations that demand substantial managerial time and increase the risk of exposing financial irregularities (Hanlon et al., 2014), thereby deterring opportunistic behaviour. Using Russia as a case, Desai et al. (2007) demonstrate that stronger tax enforcement reduces managerial diversion and enhances firm value. Building on this, Guedhami and Pittman (2008) find that tax enforcement lowers debt financing costs, and El Ghouli et al. (2011) report similar effects on the cost of equity. Additional evidence indicates that tax enforcement decreases both the likelihood and extent of income diversion and mitigates stock price crash risk (Bauer et al., 2021). Furthermore, enhanced tax enforcement is associated with improved firm performance (Mironov, 2013) and financial reporting quality (Hanlon et al., 2014).

In the Chinese context, Xu et al. (2011) find that tax enforcement decreases agency costs in the capital market, supporting its role as an effective governance mechanism. Consistent with this view, Li and Ma (2021) show that increased tax enforcement lowers firms' propensity to misreport their tax accounts. Other studies link tax enforcement to reduced corporate employment (Liu et al., 2022), lower stock price crash risk (Xu et al., 2023), and increased efficiency in mergers and acquisitions (Zhang et al., 2023b). More recently, Tang et al. (2024) demonstrate that tax authority oversight improves corporate internal control quality, using the implementation of province-level tax discretion benchmarks as their empirical setting.

The underlying argument of these studies is that tax enforcement shapes corporate governance, thereby influencing financial reporting quality and financing costs. However, they largely overlook the drivers of tax enforcement. Our study addresses this gap by examining the role of tax authority independence, a key precursor to tax enforcement, in curbing earnings management. We argue that greater tax authority independence enhances tax enforcement capacity and, in turn, constrains earnings management.

Closely related to our study are Zhao (2023), Ye et al. (2023) and Feng et al. (2023b), Zhao (2023) and Ye et al. (2023) examine how technological advancements in tax administration, implemented through China's Golden Tax III Project, improve earnings informativeness and corporate information disclosure quality. In contrast, our study investigates the impact of tax authority independence, arising from the merger of national and local tax bureaus, on firm behaviour. While Feng et al. (2023a, 2023b) similarly use the tax authority merger setting, their focus is on regulatory consequences, showing that enhanced tax enforcement reduces corporate financial irregularities, as measured by stock exchange penalties. By comparison, our study examines corporate financial reporting behaviour, specifically whether independent tax authorities constrain managerial opportunism. By emphasising the preventive governance role of tax authority independence, our study sheds light on the behavioural effects that precede formal enforcement actions. The merger is considered exogenous, as it was mandated by the central government level, with local governments having no control over its timing and implementation.

Drawing on the theory proposed by Desai et al. (2007), we posit that tax authority independence restrains earnings manipulation. First, the merger of national and local tax authorities has altered the hierarchical relationship between local tax authorities and local governments. After the merger, local tax authorities operate under the central leadership of the State Administration of Taxation, reducing their susceptibility to local government influence. This institutional shift strengthens tax authority independence, leading to more efficient tax collection and stronger effective tax enforcement. Hanlon et al. (2014) find that stronger tax enforcement makes it

increasingly difficult for firms to conceal aggressive tax avoidance through opaque financial reports, thereby improving the corporate information environment (Gallemore and Jacob, 2020).

Under the 2013 China Taxes Collection Act, tax authorities have the right to inspect taxpayers' ledgers and financial statements, including the ability to seize financial statements from previous years for further investigation. This rigorous oversight deters earnings manipulation by increasing scrutiny and potential penalties, raising the costs of misreporting in either direction. Downward earnings management is more directly targeted as it reduces tax income and thus tax revenue. However, upward earnings management is also constrained. For profitable firms, inflating earnings becomes less attractive as higher reported profits directly increase tax obligations (Bradley et al., 2015). While loss-making firms often have incentives to manage earnings upward to meet analyst forecasts or avoid delisting, they face intensified scrutiny when reporting sudden turnarounds, particularly under strengthened tax authority independence. In such cases, the elevated risk of detection, including reputational damage and loss of investor confidence, outweighs the potential non-tax benefits of meeting market expectations. Accordingly, the increased tax authority independence has led to heightened regulatory scrutiny, increasing the costs of earnings manipulations for all firms.

Second, the merger of tax authorities has established a unified tax authority that facilitates the comprehensive sharing of tax-related information, thereby reducing opportunities for earnings manipulation stemming from information asymmetry. Prior to the merger, challenges such as incompatible information systems and inadequate inter-agency communication created information gaps that businesses could exploit for earnings management purposes. Following the merger, tax-related data has become centralised, standardised and accessible across the unified system. Enhanced tax authority independence therefore reduces information asymmetry between tax authorities and companies, enabling more effective identification of tax noncompliance. This increasingly complicates attempts for firms to manipulate financial earnings without detection. Thus, we propose the following hypothesis:

Hypothesis 1. Tax authority independence is negatively associated with earnings manipulation.

3. Data and method

3.1. Sample

Our firm-level data are sourced from the China Stock Market and Accounting Research Database (CSMAR), while provincial-level data (e.g., GDP and tax revenue) are obtained from the China Statistical Yearbook and China Taxation Yearbook. Our sample comprises all companies listed on the Chinese A-share market from 2010 to 2021. We select this sample period to exclude the influence of the 2008 global financial crisis and maintain relatively balanced pre-merger (2010–2017) and post-merger (2018–2021) periods for the DiD analysis. The initial dataset contains 32,614 firm-year observations. After excluding B-share firms (1208 observations), financial firms (312 observations), firms listed after 2017 (7091 observations), firms with abnormal value (279 observations), and those with missing variables (2783 observations), our final sample consists of 20,941 firm-year observations. All continuous variables are win-sorized at the top and bottom 1%.

3.2. Measuring earnings management

We assess accrual-based earnings management using the modified Jones model (Dechow et al., 1995).

$$\frac{TACC_{i,t}}{TA_{i,t-1}} = a_0 + a_1 \left(\frac{1}{TA_{i,t-1}} \right) + a_2 \left[\frac{\Delta REV_{i,t} - \Delta REC_{i,t}}{TA_{i,t-1}} \right] + a_3 \left(\frac{PPE_{i,t}}{TA_{i,t-1}} \right) + \varepsilon_{i,t} \quad (1)$$

$$\frac{NAEM_{i,t}}{TA_{i,t-1}} = \hat{a}_0 + \hat{a}_1 \left(\frac{1}{TA_{i,t-1}} \right) + \hat{a}_2 \left[\frac{\Delta REV_{i,t} - \Delta REC_{i,t}}{TA_{i,t-1}} \right] + \hat{a}_3 \left(\frac{PPE_{i,t}}{TA_{i,t-1}} \right) \quad (2)$$

$$AEM = \frac{TACC_{i,t}}{TA_{i,t-1}} - \frac{NAEM_{i,t}}{TA_{i,t-1}} \quad (3)$$

Where $TACC$ represents total accruals, calculated as net income from continuing operations minus operating cash flows; TA denotes total assets in year $t-1$; ΔREV refers to the change in sales revenue from year $t-1$ to year t ; ΔREC indicates the change in accounts receivable from year $t-1$ to year t ; PPE refers to net property, plant, and equipment at the end of the year. All variables are scaled by lagged total assets to control for potential size differences that may influence the accruals estimate (Cohen et al., 2008). $NAEM$ is non-discretionary accruals. We estimate Eq. (1) for all firms by industry and year. We then use the industry- and year-specific parameter estimates from Eq. (1) to calculate firm-specific $NAEM$. Discretionary accruals (AEM) are then determined by finding the difference between total and non-discretionary accruals, as outlined in Eq. (3). A higher absolute value of AEM indicates a greater likelihood of earnings manipulation.

3.3. Regression model

To test [Hypothesis 1](#), we employ the following regression model to investigate the relationship between tax authority independence and earnings management:

$$EM_{i,t} = a_0 + a_1 Treat_i \times Post_t + a_2 Controls_{i,t-1} + Firm\ FE + Year\ FE + \epsilon_{i,t} \quad (4)$$

Where $EM_{i,t}$ captures the earnings management of firm i in year t , measured by discretionary accruals based on the modified Jones model (Dechow et al., 1995). The merger of national and local tax authorities presents a natural setting to test our hypothesis. We categorise firms in the treatment group as those affected by the tax authority merger, and firms in the control group as those unaffected.¹ $Treat$ equals one if a firm is affected by the merger, and zero otherwise. $Post$ is a dummy variable for the timing of the merger, which takes one for the sample years from 2018 to 2021, and zero otherwise for earlier sample years. A significantly negative coefficient for the interaction term $Treat \times Post$ indicates that tax authority independence constrains earnings management.

Following the prior literature (e.g., Francis et al., 2005; Kim and Park, 2014; Cheng et al., 2016), $Controls_{i,t-1}$ includes firm-level characteristics influencing earnings management: firm size (*Size*), leverage (*Leverage*), financial performance (*ROA*), inventory to assets ratio (*Inventory*), firm growth (*Growth*), audit opinion (*Opinion*), ownership concentration (*OwnCon*), board size (*Board*), CEO power (*Duality*) and independent director ratio (*IndeDir*). We additionally control for macroeconomic factors, including GDP per capita in a province (*GDP*), provincial population (*Population*), and provincial fiscal conditions (*Deficit*), to account for their potential impact on earnings management. Higher values of these indicators may indicate a greater concentration of firms and heightened market competition, which can pressure firms to meet or exceed earnings expectations to attract investments, potentially leading to earnings management. To mitigate reverse causality, all explanatory variables are lagged by one year in all analyses. Firm- and year- fixed effects are included to tackle potential heteroskedasticity and autocorrelation (Gow et al., 2010). All variables are defined in Appendix A.

3.4. Summary statistics

Panel A of Table 1 presents the summary statistics. The mean value of EM is 0.0553, with a maximum value for EM of 0.3916, consistent with prior studies (e.g., Pan et al., 2022), suggesting the presence of earnings management among Chinese firms. The average value of $Treat$ is 0.7626, indicating that approximately 76% of the sample firms are affected by the merger of national and local authorities. Similarly, the mean of $Post$ is 0.5719, indicating that 57% of the firm-year observations fall after the merger, reflecting a relatively balanced distribution before and after the merger. The relatively high standard deviation of $Size$ reflects considerable variation in firm size. The average ROA is 0.0356, and the mean $Leverage$ is 0.4259, suggesting that some firms in the sample are highly leveraged. The mean of $IndeDir$ is 0.3813, indicating that, on average, independent directors comprise about 38% of board directors. Additionally, 27% of the firms have a CEO who also chairs the board (*Duality*). The descriptive statistics for the remaining control variables are largely in line with the literature. The dataset includes firms from all 46 industries across 31 provinces, supporting its broad representativeness. Panel B of Table 1 displays the correlation coefficients for key variables. Notably, $Treat \times Post$ is negatively correlated with EM , offering initial support for our hypothesis. The correlations between EM and the control variables are also generally consistent with existing literature, further validating our empirical model.

4. Main results

4.1. Tax authority independence and earnings management

We employ a DiD approach to examine the impact of tax authority independence on earnings management. Table 2 reports the DiD results. Column (1) includes $Treat \times Post$ only, while Columns (2)–(4) add control variables, namely, firm controls, corporate governance controls, and all controls including macroeconomic factors. Across all specifications (Columns 1–4), the coefficient on $Treat \times Post$ is negative and statistically significant, indicating that tax authority independence reduces earnings management, thus supporting Hypothesis 1 (coefficient = -0.0068 in Column 4), $p < 0.01$). The results also hold sizable economic significance, as tax authority independence leads to a 12% decrease in earnings management relative to the sample mean, calculated as $-0.0068/0.0553$, following Pan et al. (2022).

The results for the control variables are largely consistent with prior literature. In line with Francis et al. (2008) and Wang (2006), we find that large firms are less likely to engage in earnings management. Firms with higher profitability and those receiving non-qualified audit opinions are prone to earnings management. We also observe a significant positive correlation between GDP and earnings engagement, suggesting that firms operating in regions with higher GDP per capita are more inclined towards earnings management.

The reliability of the DiD estimation relies on the validity of the parallel-trend assumption. Following Bertrand and Mullainathan (2003) and Jacobson et al. (1993), we adopt a dynamic effects model to test this assumption. This model allows us to verify whether the parallel trend assumption holds and enables us to observe differences in treatment effects across sample periods. If a predetermined

¹ The tax authority merger represents a single period DiD design, not a staggered DiD. We assign firms to treatment and control groups based on their pre-merger tax jurisdiction. Firms previously under local tax bureau (LTB) jurisdiction before the merger constitute the treatment group, while those under national tax bureau (NTB) jurisdiction form the control group. Jurisdiction assignment depends on firm establishment date: before 2002, newly established central government-owned enterprises and foreign firms fell under NTB jurisdiction, while other firms were under LTB jurisdiction. After 2002, all newly established firms were assigned to the NTB jurisdiction. As Shanghai operates a unified NTB-LTB system and Tibet lacks an LTB, firms in these regions are not affected by the tax authority merger and are therefore classified as the control group.

Table 1
Summary statistics and correlation matrix.

Panel A: Summary statistics															
Variables	N	Mean	SD	Min.	Median	Max.									
EM	20,941	0.0553	0.0566	0	0.0376	0.3916									
EM2	20,941	0.0556	0.057	0	0.038	0.5005									
EM3	20,941	0.0443	0.0481	0	0.03	0.5636									
Treat	20,941	0.7626	0.4255	0	1	1									
Post	20,941	0.5719	0.4948	0	1	1									
Size	20,941	22.1513	1.2715	19.6123	21.9955	26.0818									
Leverage	20,941	0.4259	0.2088	0.053	0.4172	0.9184									
ROA	20,941	0.0356	0.0645	-0.3227	0.0359	0.197									
Inventory	20,941	0.1414	0.1424	0	0.1061	0.7227									
Growth	20,941	0.1701	0.3216	-0.3443	0.0903	1.8739									
Opinion	20,941	0.0139	0.1171	0	0	1									
OwnCon	20,941	0.7417	0.6197	0.0281	0.5754	2.8544									
Board	20,941	2.387	0.2299	1.7918	2.3979	2.9957									
Duality	20,941	0.276	0.447	0	0	1									
IndeDir	20,941	0.3813	0.072	0.25	0.3636	0.6									
GDP	20,941	11.6331	0.7798	9.9042	11.6663	13.1164									
Population	20,941	6.4028	0.694	4.3458	6.4211	8.1288									
Deficit	20,941	14.661	1.0875	11.6806	14.6303	16.6913									

Panel B: Correlation matrix.															
Variables	EM	Treat×Post	Size	Leverage	ROA	Inventory	Growth	Opinion	OwnCon	Board	Duality	IndeDir	GDP	Population	Deficit
EM	1														
Treat×Post	-0.021***	1													
Size	-0.090***	0.172***	1												
Leverage	0.047***	0.040***	0.509***	1											
ROA	-0.092***	-0.050***	-0.004	-0.333***	1										
Inventory	0.108***	-0.019***	0.170***	0.321***	-0.073***	1									
Growth	0.018**	-0.104***	-0.048***	-0.093***	0.276***	-0.085***	1								
Opinion	0.101***	0.044***	-0.016**	0.070***	-0.215***	-0.011	-0.079***	1							
OwnCon	0.027***	0.052***	-0.112***	-0.146***	-0.003	-0.102***	0.116***	0.034***	1						
Board	-0.033***	0.015**	0.237***	0.168***	-0.068***	0.001	-0.088***	0.016**	-0.001	1					
Duality	0.028***	-0.011	-0.166***	-0.138***	0.029***	-0.042***	0.097***	0.007	0.059***	-0.149***	1				
IndeDir	0.005	-0.035***	-0.065***	-0.073***	0.037***	0.009	0.030***	-0.004	0.013*	-0.173***	0.110***	1			
GDP	0.041***	0.109***	0.019***	-0.031***	0.004	-0.011	0.027***	-0.012*	0.074***	-0.078***	0.118***	0.066***	1		
Population	0.011	0.032***	0.047***	-0.002	0.006	0.022***	0.006	0.001	0.023***	0.017**	-0.009	-0.013*	0.135***	1	
Deficit	0.028***	0.275***	0.098***	0.009	-0.038***	-0.026***	-0.030***	0.021***	0.053***	0.006	0.037***	0.014**	0.349***	0.659***	11

Note: Table 1 reports the summary statistics and correlations of the variables. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 2
Tax authority independence and earnings management.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	No controls	Firm controls	Governance controls	All controls	PSM-DiD	Upward EM	Downward EM
Variables	EM	EM	EM	EM	EM	EM	EM
<i>Treat</i> × <i>Post</i>	−0.0065*** (0.002)	−0.0069*** (0.002)	−0.0069*** (0.002)	−0.0068*** (0.003)	−0.0063*** (0.002)	−0.0027 (0.003)	−0.0074** (0.004)
<i>Size</i>		−0.0086*** (0.002)	−0.0089*** (0.002)	−0.0090*** (0.002)	−0.0093*** (0.002)	−0.0219*** (0.002)	0.0019 (0.002)
<i>Leverage</i>		0.0001 (0.006)	0.0017 (0.006)	0.0015 (0.006)	−0.0005 (0.007)	0.0091 (0.008)	0.0012 (0.009)
<i>ROA</i>		0.0223** (0.010)	0.0238** (0.010)	0.0237** (0.010)	0.0211* (0.013)	0.0593*** (0.015)	0.0171 (0.016)
<i>Inventory</i>		0.0028 (0.008)	0.0035 (0.008)	0.0036 (0.008)	0.0173 (0.011)	−0.0114 (0.012)	0.0271** (0.013)
<i>Growth</i>		−0.0024 (0.002)	−0.0026 (0.002)	−0.0027 (0.002)	−0.0022 (0.002)	0.0049** (0.002)	−0.0130*** (0.003)
<i>Opinion</i>		0.0264*** (0.006)	0.0262*** (0.006)	0.0262*** (0.006)	0.0269*** (0.008)	0.0044 (0.008)	0.0320*** (0.008)
<i>OwnCon</i>			0.0031* (0.002)	0.0032* (0.002)	0.0049** (0.002)	−0.0009 (0.002)	0.0049* (0.003)
<i>Board</i>			0.0012 (0.003)	0.0013 (0.003)	0.0012 (0.003)	0.0006 (0.004)	0.0026 (0.004)
<i>Duality</i>			0.000 (0.002)	0.000 (0.002)	−0.0019 (0.002)	−0.0023 (0.002)	0.0015 (0.002)
<i>IndeDir</i>			−0.0004 (0.007)	−0.0002 (0.007)	−0.006 (0.009)	−0.0039 (0.010)	0.0052 (0.011)
<i>GDP</i>				0.0082** (0.004)	0.0048 (0.004)	0.0125*** (0.005)	0.0047 (0.005)
<i>Population</i>				0.0053 (0.004)	−0.0002 (0.005)	0.0057 (0.005)	0.005 (0.007)
<i>Deficit</i>				−0.001 (0.001)	−0.0002 (0.001)	−0.0005 (0.002)	−0.0013 (0.002)
Constant	0.0577*** (0.001)	0.2468*** (0.032)	0.2485*** (0.033)	0.1346* (0.071)	0.2054*** (0.077)	0.3616*** (0.085)	−0.0677 (0.111)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	20,941	20,941	20,941	20,941	13,500	10,705	10,236
Adj. R ²	0.168	0.1745	0.1745	0.1749	0.1692	0.2504	0.1904

Note: This table reports the results of regressing earnings management (*EM*) in year *t* on tax authority independence (*Treat*×*Post*) and the control variables in year *t* − 1. Columns (1)–(4) display the results with different controls. Column (5) reports the results of PSM-DiD tests. Columns (6) and (7) report the results from subsample analysis when dividing the sample into upward and downward earnings management. Robust standard errors clustered by firm are in parentheses. *** *p* < 0.01, ** *p* < 0.05, * *p* < 0.1. All variables are defined in Appendix A.

trend exists, it is likely to emerge before the tax authority merger. Thus, the absence of significant changes in earnings management prior to the merger would support the validity of the parallel trend assumption. To test this, we create a set of dummy variables *Year_t* for each year, and interact them with *Treat_t* in the following regression model:

$$EM_{i,t} = \beta_0 + \beta_1 \sum_{t=2012, \neq 2015}^{2021} Treat_t \times Year_t + \beta_2 Controls_{i,t-1} + Firm\ FE + Year\ FE + \epsilon_{i,t} \quad (5)$$

We set 2015 as the baseline year; therefore, it is excluded from the regression. The coefficient β_1 captures the impact of the tax authority merger on earnings management in year *t*, relative to 2015. Fig. 1 plots the coefficients of the interaction term *Treat*×*Year* for the years 2012 to 2021. The results show that the interaction terms for the pre-shock period (2012–2017) are not significant, indicating no substantial differences in earnings management between the treatment and control groups. This finding supports the parallel trend assumption: in the absence of the 2018 merger, the two groups would have followed similar trends. From 2018 onwards, the interaction term becomes significantly negative and remains stable, with the strongest effect observed in 2020. These findings suggest no pre-existing trends, ruling out the possibility that the main results are driven by a predetermined trend, and thereby lending support to the causal relationship between tax authority independence and earnings management.

4.2. PSM-DiD analysis

Despite our efforts to mitigate endogeneity concerns through lagged explanatory variables and firm- and year-fixed effects, substantial differences between treatment and control groups may still influence our main findings. To address this potential issue, we undertake a PSM-DiD analysis. Following Mishra (2014), we use nearest-neighbour matching for both control and treatment observations to strengthen the validity of our analysis prior to performing the DiD analysis. We provide the PSM balance test results in

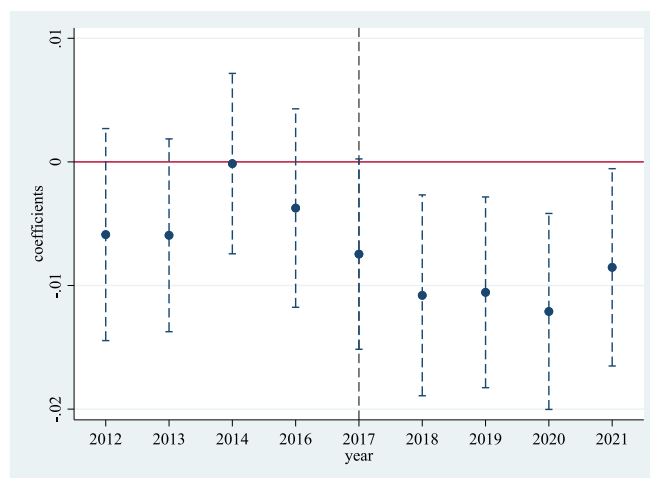


Fig. 1. Dynamic effects of the tax authority independence on earnings management.

Note: This figure shows the time-variant roles of the merger of the national and local tax authorities on the change in earnings management from 2012 to 2021. 2015 is set as the baseline year, indicating that each coefficient reflects the earnings management effect of the tax authority merger relative to that of 2015. The vertical reference line in 2017 is the timing of the merger. The insignificant coefficients prior to 2017 verify the parallel-trend assumption, and the significant and negative coefficients after 2017 suggest that earnings management significantly reduces after the merger.

Appendix B. The *t*-test results show that all differences between treated and control samples are insignificant after matching, suggesting that the matching effect is effective. Next, we run Eq. (4). The PSM-DiD results are reported in Column (5) of Table 2. As expected, the coefficient of $Treat \times Post$ is negatively significant, providing additional support for our hypothesis.

4.3. Tax authority independence and earnings management behaviour

Our argument is based on the premise that tax authority independence reduces earnings manipulation through dual mechanisms: upward earnings management becomes less attractive due to higher tax liabilities, while downward earnings management to minimise taxes faces disapproval from investors. This prompts us to explore whether tax authority independence may have different effects in upward or downward earnings management. The merger of national and local tax authorities has enhanced information sharing, leading to more rigorous tax audits and enforcement that make tax avoidance and evasion activities easier to detect. This improved oversight particularly constrains firms' ability to manipulate earnings downward to avoid tax payments. Given that tax authorities prioritise protecting tax revenue, we expect tax authority independence to more effectively constrain downward earnings management, which directly reduces tax liabilities, than upward manipulations that pose less threat to tax revenue. Accordingly, we propose that tax authority independence has a stronger deterrent effect on downward earnings management. Examining this distinction offers important implications for policymakers and tax authorities in formulating targeted strategies to ensure fair taxation and improved governance practices.

To test this proposition, we separate the sample into two subsamples: firms engaged in upward and downward earnings management. Table 2, Columns (6) and (7), shows that tax authority independence ($Treat \times Post$) has a negative but insignificant effect on upward earnings management while significantly reducing downward earnings management (coefficient = -0.0074 , $p < 0.05$). This differential impact indicates that tax authority independence is more effective at curbing downward earnings management. This effectiveness stems from tax authorities' focus on aligning reported income with taxable income, making them especially vigilant against income understatement. Conversely, upward earnings management, particularly if driven by capital market pressure (e.g., meeting analyst expectations), attracts less tax authority attention. Consequently, tax authority independence has a limited impact on upward manipulations.

5. Further analyses and mechanism tests

5.1. Ownership influence

State-owned enterprises (SOEs) may have fewer incentives for earnings management than non-SOEs. First, their greater access to resources enables more effective mitigation of earnings manipulation risks (Li and Zhou, 2005; Wu et al., 2012). Second, detecting earnings management in SOEs carries substantial costs, as exposure damages both the firm's reputation and the corresponding government's public image (Wang et al., 2020). Consequently, SOE managers exercise greater caution in pursuing earnings management strategies. Empirical evidence supports this perspective, demonstrating that earnings management occurs less frequently in SOEs (Du et al., 2017), which implies higher susceptibility to earnings manipulation among non-SOEs. Third, SOEs face less public scrutiny as their operations are often perceived as serving broader national interests (Bai et al., 2006). This perception may reduce the need for

strict oversight by tax authorities. Additionally, government support for SOEs can lead to regulatory leniency, thereby weakening tax collection and undermining tax authority independence. Accordingly, we postulate that as tax authority independence increases, its constraining effect on earnings management becomes more pronounced in non-SOEs than in SOEs.

We split our sample into SOEs and non-SOEs and re-run Eq. (4). The results, presented in Table 3, Columns (1) and (2), show that the coefficient of $Treat \times Post$ is negative and significant for non-SOEs (Column 2), but is not significant for SOEs. The findings suggest that the impact of enhanced tax authority independence in curbing earnings management is stronger among non-SOEs compared to SOEs.

5.2. Political influence

Our main findings provide evidence that tax authority independence reduces corporate earnings management. This finding raises a crucial subsequent inquiry: to what extent has tax authority independence actually improved, and how vulnerable does this independence remain to political influence? If political forces sway tax authority independence, the ensuing effects on corporate earnings management behaviour warrant serious consideration.

Political connections play a pivotal role, particularly in transition economies characterised by substantial government intervention, weak property rights protection and limited contract enforcement (Jiang et al., 2018). While existing literature underscores positive aspects of political connections, including facilitated access to debt financing (Dinc, 2005), reduced financial constraints (Deng et al., 2019), and increased government subsidies (Jiang et al., 2018), it also reveals instances where politically connected firms exploit lenient regulations and receive preferential tax treatment (Lin et al., 2018).

Managers with previous political experience possess insights into government procedures and preferences, enabling them to anticipate government behaviour. Consequently, politically connected firms may influence the tax collection processes through lobbying of policymakers. This governmental intervention undermines tax enforcement efficiency and weakens the external governance effects of tax authority independence, thereby creating opportunities for managers of connected firms to engage in earnings manipulation. Following this logic, we expect the negative correlation between tax authority independence and earnings management to be attenuated among politically connected firms.

We divide our sample into politically connected and non-politically connected firms, and re-estimate Eq. (4) for each group. Following the literature (Faccio, 2006; Jiang et al., 2018; Fan et al., 2007), we assess political connections (PCON) by examining whether a firm's top executives possess political affiliations during their current and previous roles. We assign the value of one for executives with political connections and zero otherwise. Political connections are identified when executives meet any of the following criteria: (1) membership in the National People's Congress (NPC), (2) involvement in the National Committee of the Chinese People's Political Consultative Conference (CPPCC), and (3) previous government positions at the provincial, municipal, or county level prior to assuming executive roles in publicly listed firm.

Table 3, Columns (3) and (4), report the results. Our findings reveal that the coefficient for $Treat \times Post$ in Column (3) is not significant for politically connected firms but becomes negatively significant for non-politically connected firms in Column (4). This suggests that the constraining effect of tax authority independence on earnings management is far more effective in non-politically connected firms. The results substantiate our argument that the negative relationship between tax authority independence and earnings management weakens in politically connected firms.

5.3. Auditor quality influence

The literature consistently demonstrates that audit quality plays a critical role in curbing corporate earnings management (Van Tendeloo and Vanstraelen, 2008; Francis and Yu, 2009). The core function of auditing is to ensure the accurate application of accounting policies. This function becomes particularly critical for Big-4 audit firms, for whom the reputational cost of client misreporting is especially high due to their global presence (Francis and Wang, 2008). As such, Big-4 auditors are more inclined to enforce stringent standards and act as effective external monitors, limiting clients' opportunities to manipulate earnings. In contrast, non-Big-4 auditors face lower reputation risks and may have less incentive to uphold the same level of earnings quality. Based on this rationale, we posit that the impact of tax audit independence is more pronounced among firms audited by non-Big-4 auditors. To test this, we divide our sample into two subsamples: firms audited by Big-4 auditors (Big-4, data collected from CSMAR) and those audited by non-Big-4 auditors (non-Big-4) and re-estimate Eq. (4).

The results in Table 3, Columns (5) and (6), show that the coefficient for $Treat \times Post$ is not significant for firms audited by Big-4 auditors (Column 5), but significantly negative for firms audited by non-Big-4 auditors (Column 6; coefficient = -0.0072 , $p < 0.01$). Notably, the absolute value of the coefficient is substantially larger for firms audited by non-Big-4 auditors compared to their counterparts. This suggests that the impact of tax authority independence on earnings management is more evident in firms audited by non-Big-4 auditors.

5.4. Influence of the legal environment

In addition to firm-specific attributes, the regional legal environment may influence how tax authority independence affects earnings manipulation. Given that tax authority consolidation was implemented nationwide, the impact of increased tax authority independence can manifest through regional variations in institutional quality. In regions with a strong legal environment, tax authorities already possess considerable enforcement power, raising the costs of concealing aggressive tax avoidance through opaque

Table 3
Further analyses.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	SOEs	Non-SOEs	PCON Firms	Non-PCON Firms	Big-4 Auditors	Non-Big-4 Auditors	High LawIndex	Low LawIndex
Variables	<i>EM</i>	<i>EM</i>	<i>EM</i>	<i>EM</i>	<i>EM</i>	<i>EM</i>	<i>EM</i>	<i>EM</i>
<i>Treat</i> × <i>Post</i>	−0.0012 (0.004)	−0.0080*** (0.003)	0.0018 (0.004)	−0.0103*** (0.003)	−0.0012 (0.006)	−0.0072*** (0.002)	0.0003 (0.006)	−0.0150*** (0.006)
<i>Size</i>	−0.0122*** (0.002)	−0.0093*** (0.002)	−0.0116*** (0.003)	−0.0092*** (0.002)	−0.0243*** (0.009)	−0.0086*** (0.002)	−0.0152*** (0.004)	−0.0089** (0.004)
<i>Leverage</i>	−0.0008 (0.009)	−0.0044 (0.008)	0.0036 (0.011)	0.0018 (0.007)	0.0181 (0.026)	0.0021 (0.006)	0.0073 (0.014)	−0.0124 (0.014)
<i>ROA</i>	0.0191 (0.021)	0.0299** (0.012)	0.0411* (0.021)	0.0305** (0.012)	0.016 (0.063)	0.0242** (0.010)	0.0222 (0.025)	0.003 (0.023)
<i>Inventory</i>	0.0275* (0.015)	−0.0042 (0.010)	−0.0409** (0.019)	0.0223** (0.010)	0.016 (0.037)	0.0012 (0.009)	0.0122 (0.017)	−0.0085 (0.020)
<i>Growth</i>	0.0051 (0.004)	−0.0035* (0.002)	−0.0036 (0.003)	−0.0034* (0.002)	−0.0032 (0.007)	−0.0026 (0.002)	−0.0029 (0.004)	0.0001 (0.004)
<i>Opinion</i>	0.0063 (0.012)	0.0274*** (0.006)	0.0235** (0.011)	0.0243*** (0.007)	0.0009 (0.010)	0.0246*** (0.006)	0.0254* (0.014)	0.024 (0.015)
<i>OwnCon</i>	0.0004 (0.003)	0.0050** (0.002)	0.003 (0.004)	0.0033 (0.002)	0.0047 (0.009)	0.0035* (0.002)	0.0008 (0.004)	0.0047 (0.004)
<i>Board</i>	0.0056 (0.004)	−0.0018 (0.003)	−0.0042 (0.005)	0.0015 (0.003)	−0.0099 (0.008)	0.0018 (0.003)	0.0035 (0.006)	0.0037 (0.005)
<i>Duality</i>	−0.0025 (0.002)	0.0004 (0.002)	−0.0035 (0.003)	0.0021 (0.002)	0.0051 (0.007)	0.0000 (0.002)	−0.0011 (0.003)	−0.0001 (0.003)
<i>IndeDir</i>	−0.0037 (0.010)	0.0038 (0.010)	0.0223* (0.013)	−0.0086 (0.009)	−0.0041 (0.028)	−0.001 (0.007)	0.0154 (0.016)	0.0053 (0.015)
<i>GDP</i>	0.0137*** (0.005)	0.0059 (0.005)	0.0047 (0.007)	0.0110** (0.005)	−0.0089 (0.011)	0.0101*** (0.004)	0.0106 (0.009)	0.0095 (0.008)
<i>Population</i>	0.001 (0.006)	0.0098 (0.006)	0.0028 (0.009)	0.0083 (0.006)	0.0038 (0.008)	0.0082* (0.005)	0.0076 (0.009)	0.005 (0.008)
<i>Deficit</i>	−0.0007 (0.002)	−0.0009 (0.002)	0.0018 (0.002)	−0.0022 (0.001)	0.0019 (0.004)	−0.0011 (0.001)	−0.0059* (0.003)	0.0007 (0.003)
Constant	0.1549 (0.102)	0.1443 (0.100)	0.2146 (0.156)	0.1048 (0.091)	0.6852*** (0.184)	0.0872 (0.076)	0.2823** (0.140)	0.1011 (0.154)
Difference (p-value)	0.002***		0.01***		0.012**		0.01***	
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	7701	13,240	6687	14,254	1074	19,771	5266	3757
Adj. R ²	0.2313	0.1532	0.1816	0.1893	0.1879	0.1741	0.2284	0.155

Note: This table reports subsample analyses. We regress earnings management (*EM*) in year *t* on tax authority independence (*Treat*×*Post*) and the control variables in year *t*-1. Robust standard errors clustered by firm are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. All variables are defined in Appendix A.

reporting. Accordingly, firms in such regions may have a consistently lower incentive to manipulate earnings, regardless of the merger. Conversely, regions with weak legal institutions exhibit less consistent regulatory enforcement, offering firms more opportunities for earnings management. In these areas, the merger strengthens the independence of tax authorities, thereby improving enforcement effectiveness. Consequently, firms operating in weak legal environments may respond more strongly to increased tax authority independence, leading to a more substantial reduction in earnings management. We therefore conjecture that the constraining effect of tax authority independence on earnings management is more prominent for firms in regions with weak legal environments.

We measure the legal environment using the law index (*LawIndex*) developed by Wang et al. (2019), which is widely adopted in the literature (e.g., Jiang et al., 2022). Based on the sample median of *LawIndex*, we partition the sample into two groups: those located in provinces with above-median values, and those in provinces with below-median values. The results, reported in Columns (7) and (8) of Table 3, are consistent with our expectations. Specifically, the coefficient of *Treat*×*Post* is negative and significant in Column (8), indicating stronger effects of tax authority independence on curbing earnings management in weak legal environments.

5.5. Mechanism tests

The preceding section suggests that tax authority independence constrains firm earnings management. Interestingly, the magnitude of this effect varies across firms with different characteristics, prompting us to investigate the mechanisms through which tax authority independence influences earnings management. We propose two channels.

The first channel is the tax enforcement intensity. We contend that the merger of national and local tax authorities enhances tax enforcement intensity (Liu et al., 2022), thereby improving tax collection efficiency and increasing scrutiny of firms' accounting practices and financial disclosures. This increased oversight reduces opportunities for earnings management. Zhao (2023) finds that

stronger tax authority enforcement improves earnings informativeness. Similarly, Li and Ma (2021) document a decline in accounting misstatements following increased tax authority enforcement. Following prior studies (Bird et al., 2008; Stotsky and WoldeMariam, 1997), we measure tax enforcement intensity (*TEI*) using provincial tax revenue data, including both national and local taxes, scaled by provincial GDP. Effective tax enforcement reduces tax evasion, allowing actual tax revenue collection to more closely reflect the potential revenue implied by economic activity. As noted by Besley and Persson (2014), the low tax-to-GDP ratios often observed in developing countries partly reflect weak enforcement capacity. Accordingly, a higher tax-to-GDP ratio indicates greater tax enforcement intensity, reflecting the ability of tax authorities to more effectively identify, assess, and collect taxes. This measure also facilitates meaningful comparisons of enforcement capacity across regions. We gather tax enforcement intensity (*TEI*) data for each city where sample firms are headquartered, sourced from the China Taxation Yearbook. We then regress *TEI* on tax authority independence. As reported in Table 4, Column (1), the coefficient of *Treat*×*Post* is significantly positive, indicating that the merger substantially increases tax enforcement intensity.

The second channel is corporate governance. We argue that enhanced tax authority independence, achieved through the consolidation of national and local tax bureaus, strengthens the information environment by increasing the scrutiny and verification of firms' financial reports (Hanlon et al., 2014). The merger empowers tax authorities to conduct more rigorous tax audits and investigations into tax-related matters without being influenced by local governments, thereby enhancing their capacity to enforce tax compliance. Stricter compliance compels firms to provide more detailed and accurate disclosures, as larger book-tax differences increase the likelihood of tax audits (Mills, 1998). Tax audits expose firms to intensive scrutiny, impose significant managerial costs, and raise the probability of uncovering managerial improprieties (Hanlon et al., 2014). This heightened scrutiny thus reduces information asymmetry between managers and stakeholders and encourages greater transparency and accountability.

Additionally, the post-merger centralised and standardised tax system has eliminated information gaps from previously fragmented systems and poor inter-agency communication. This reduction in information asymmetry helps curb managerial opportunism and mitigates agency problems (Desai et al., 2007; Guedhami and Pittman, 2008; Mason and Williams, 2022; Xu et al., 2011; Zhang et al., 2023b). Enhanced transparency and managerial accountability after the merger better align managerial actions with shareholder interests, enabling more effective monitoring by shareholders and boards and ultimately promoting long-term firm value. Specifically, this improved firm-tax authority information environment generates credible and reliable financial data that allows shareholders and boards to effectively assess firm performance, managerial behaviour and their strategic choices as a better information environment

Table 4
Mechanism tests.

	(1)	(2)	(3)	(4)
	Tax Enforcement	Corporate Governance	Corporate Governance	Litigation Cases
Variables	<i>TEI</i>	<i>GovernanceIndex</i>	<i>ManOwnership</i>	<i>LnLitigation</i>
<i>Treat</i> × <i>Post</i>	0.0023*** (0.001)	0.1867*** (0.060)	0.0257*** (0.006)	-0.0914** (0.040)
<i>Size</i>	0.0000 (0.000)	0.0592* (0.033)	-0.0071** (0.003)	-0.0406* (0.022)
<i>Leverage</i>	0.0011 (0.001)	-1.5877*** (0.126)	-0.0653*** (0.010)	0.3731*** (0.084)
<i>ROA</i>	0.0061*** (0.002)	4.4895*** (0.208)	0.1022*** (0.015)	-1.3977*** (0.139)
<i>OwnCon</i>	0.0004 (0.000)	-0.1065** (0.041)	0.0136*** (0.004)	0.0410* (0.025)
<i>Board</i>	0.0003 (0.001)	-0.2829*** (0.056)	-0.0165*** (0.004)	0.0761** (0.033)
<i>Duality</i>	0.0007 (0.000)	-0.0122 (0.038)	0.0048 (0.003)	-0.0363* (0.022)
<i>IndeDir</i>	0.0005 (0.002)	0.4533*** (0.152)	0.0423*** (0.011)	-0.0399 (0.089)
<i>GDP</i>	0.0048*** (0.002)	0.2576*** (0.075)	0.0027 (0.009)	-0.0608 (0.058)
<i>Population</i>	0.0177*** (0.002)	0.2103** (0.091)	-0.0061 (0.008)	-0.0328 (0.063)
<i>Deficit</i>	0.0004 (0.000)	0.0192 (0.029)	-0.0018 (0.002)	-0.0104 (0.017)
Constant	-0.0552* (0.033)	0.2511 (1.376)	0.3415** (0.168)	2.1382** (1.087)
Firm FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
N	20,688	20,934	20,941	20,941
Adj. R ²	0.9304	0.4940	0.8692	0.4213

Note: This table reports the results of mechanism tests. We employ two mechanisms, tax enforcement (*TEI*) and corporate governance, measured by *GovernanceIndex*, *ManOwnership*, and *LnLitigation*. Columns (1)–(4) regress *TEI* using *GovernanceIndex*, *ManOwnership*, and *LnLitigation* in year *t* on tax authority independence (*Treat*×*Post*) in year *t*-1, respectively. Robust standard errors clustered by firm are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. All variables are defined in Appendix A.

reduces agency problems (Jensen and Meckling, 1976). Moreover, boards and shareholders can rely on tax audit outcomes as an independent benchmark when reviewing management performance and assessing compliance risk. Complementing this internal monitoring, external pressure from the enhanced independent tax authorities makes the board's oversight role more effective, as managerial behaviour is already conditioned through external accountability. Consequently, we predict that greater tax authority independence improves corporate governance, and that enhanced corporate governance, in turn, reduces earnings management, as supported by prior literature (; Shen and Chin, 2007; Cornett et al., 2009).

We measure corporate governance using three proxies. First, we employ the composite governance index (*GovernanceIndex*), sourced from Huazheng ESG ratings, which is widely adopted in recent studies (e.g., Deng et al., 2023; Zhang et al., 2023a), to capture overall governance quality. Second, we use managerial ownership, as higher managerial shareholdings motivate managers to align

Table 5
Hazard model and Heckman two-stage tests.

Panel A: Hazard model		
Variables	<i>Merge</i>	
<i>MeanEM</i>	−0.0373 (0.547)	
<i>Regpay</i>	0.0308 (0.024)	
<i>Deficit</i>	−0.0104 (0.018)	
<i>GDPGrowth</i>	0.0182 (0.114)	
<i>Population</i>	−0.0009 (0.025)	
Constant	1.1352*** (0.149)	
Province FE	Yes	
Year FE	Yes	
N	9939	
Adj. R ²	0.5752	

Panel B: Heckman two-stage test.		
Variables	(1)	(2)
	<i>Tax Authority Independence</i>	<i>EM</i>
<i>Treat</i> × <i>Post</i>		−0.0461*** (0.017)
<i>GDP</i>	−0.2247*** (0.020)	−0.0002 (0.009)
<i>Population</i>	−0.1072*** (0.027)	−0.0011 (0.010)
<i>Deficit</i>	0.0711*** (0.019)	−0.0005 (0.002)
<i>GDPGrowth</i>	−0.5764** (0.267)	
<i>IMR</i>		0.0271 (0.024)
Other controls		Yes
Constant	Yes	Yes
Firm/ Industry FE	Yes	Yes
Year FE	Yes	Yes
N	13,703	11,042
Pseudo R ² / Adj. R ²	0.2709	0.2093

Note: Panel A of Table 5 reports the Hazard model results, showing that the merger of tax authorities is an exogenous event. Panel B of Table 5 presents the results of the Heckman two-stage regression analysis. Robust standard errors clustered by firm are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. All variables are defined in Appendix A.

their interests with those of shareholders (Jensen and Meckling, 1976), thereby increasing firm efficiency and corporate governance (Lin et al., 2009). Third, we consider litigation risk, measured as the natural logarithm of the number of lawsuits ($LnLigation$), under the assumption that greater involvement in legal disputes reflects weak governance structures.

The results in Columns (2)–(4) of Table 4 reveal that tax authority independence improves corporate governance (coefficients = 0.1867, 0.0257 and -0.0914 , $p < 0.01$ and 0.05 , respectively). These findings collectively show that greater independence of tax authorities strengthens corporate governance. Specifically, stronger tax oversight and stricter tax audits discourage opportunistic managerial behaviour, leading to higher governance quality (as reflected in the *GovernanceIndex*). In addition, greater managerial ownership further aligns managers' interests with shareholders, reinforcing accountability. Furthermore, fewer lawsuits indicate that independent tax authorities promote more transparency and compliance, reducing litigation risk. Overall, these results confirm that tax authority independence enhances internal controls, accountability, and ethical corporate conduct.

6. Robustness checks

6.1. Hazard model and Heckman two-stage tests

Although the merger of national and local tax authorities is exogenous and we use lagged explanatory variables, PSM, placebo tests, and firm- and year- fixed effects, we conduct additional robustness tests to further address potential endogeneity concerns. First, following Beck et al. (2010), we run a Hazard model test to demonstrate that the merger is an exogenous event uncorrelated with earnings manipulation. The merger was mandated by the central government and implemented uniformly nationwide, with neither the decision nor its execution influenced by regional conditions or provincial differences. We regress *Merge*, measured as the natural logarithm of the difference between the merger year and the observation year, on *MeanEM*, defined by the mean value of earnings management by year and province. To account for regional economic conditions that might influence the timing of the merger, we also control for provincial fiscal deficit (*Deficit*), GDP growth rate (*GDPGrowth*), population size (*Population*), and average regional wage (*Regpay*). Additionally, we include province and year fixed effects. Panel A of Table 5 shows that the coefficient of *MeanEM* is not significant, indicating that tax authority merger is independent of corporate earnings manipulation. Similarly, regional economic development, population size, fiscal deficit, and average regional wage exhibit no significant association with *Merge*. These results confirm that the merger of national and local tax authorities is an exogenous event.

Next, we examine whether potential self-selection issues from regional economic development disparities affect our findings. We adopt the Heckman two-stage approach. The first stage runs a Probit model that regresses tax authority independence on the regional economic development variables, consistent with those in the Hazard model. The Inverse Mills Ratio (IMR) generated from the first stage is then included in the second stage to control for sample selection bias. Panel B of Table 5 reports the Heckman test results. After incorporating the IMR, the *Treat* \times *Post* coefficient remains significantly negative, in line with baseline results. The insignificant IMR coefficient indicates that self-selection bias does not affect our findings.

6.2. Placebo test

To eliminate the chance that our main results are coincidental, we conduct placebo tests as a safeguard. Following Chetty et al. (2009), we randomly assign a false treatment variable (*TreatF*) to firms and construct an interaction term, *TreatF* \times *Post*. Given the

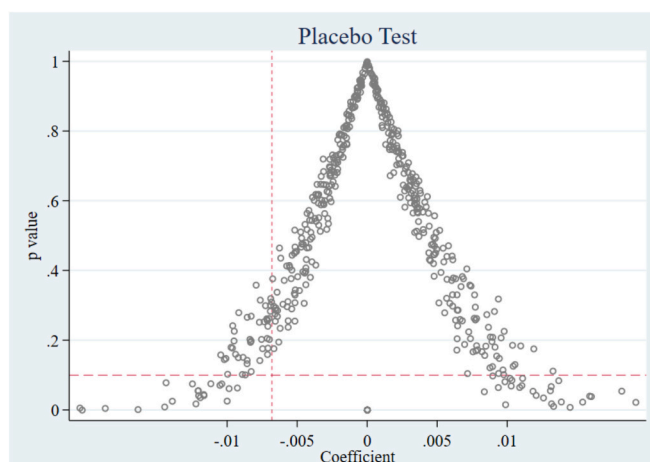


Fig. 2. Placebo test results.

Note: This figure plots the Kernel density and p -values of 500 estimates of the coefficients of *TreatF* \times *Post* constructed by random assignment of the treatment variable across firms. We observe that the distribution of false estimates concentrates around zero, and the true estimate (-0.0068 reported in Column (4) of Table 2) falls out of the placebo test, indicating that our baseline result is not severely biased by any omitted variables.

randomised nature of this assignment, $TreatF \times Post$ should theoretically have no systematic effect on earnings management, and its estimated coefficient should not statistically differ from zero. To prevent any distortion from rare events, we repeat this process 500 times. The distribution of the placebo estimates is depicted in Fig. 2, which shows that the distribution centres on 0, with most of the coefficients having p -values greater than 0.1. In particular, our true estimate of -0.0068 , reported in Column (4) of Table 2, falls outside this distribution. The placebo test results confirm that our main findings are unlikely to be driven by unobserved or endogenous factors; rather, they demonstrate the effect of tax authority independence on earnings management.

6.3. Accounting for contemporaneous shocks

During our sample period, China implemented several other policies concurrent with the tax authority merger that could potentially affect our findings. To eliminate alternative explanations, we conduct robustness tests controlling for these contemporaneous shocks.

The first is the tax reform that replaced the business tax (BT) with a value-added tax (VAT).² Known as the B2V (BT to VAT) reform, this policy was initially piloted in specific industries in Shanghai in 2011 and progressively rolled out to all provinces in 2016. The reform aimed to reduce duplicate taxation and lower corporate tax burdens. This may affect our main results because the B2V reform may have influenced firms' accounting policies and practices, thereby affecting earnings management. To rule out this alternative explanation, we introduce a dummy variable $B2V$ that equals one for firms affected by the reform and zero otherwise. Column (1) of Table 6 reports the results. Even after controlling for the B2V reform, the interaction term $Treat \times Post$ remains significantly negative, supporting our main hypothesis.

Second, the Golden Tax Project III (GTP III), a nationwide information system initiative, aims to standardise national tax administration practices related to tax data, compliance, and penalties. Initially piloted in six provinces in 2013 and gradually implemented across all provinces by 2017, GTP III seeks to enhance tax collection efficiency through a digital platform (Zhou et al., 2016). Zhao (2023) finds that the implementation of GTP III improves the informativeness of earnings. Given this, GTP III may have confounded our baseline results. To address this concern, we re-run the baseline model, introducing a control variable GTP , which equals one for firms subject to GTP III and zero otherwise. Column (2) of Table 6 presents the results. We find that the coefficient for $Treat \times Post$ remains significantly negative. This finding suggests that the decline in earnings management following the merger of national and local tax authorities is not driven by GTP III. Rather, it supports our argument that enhanced tax authority independence plays a distinct and incremental role in curbing earnings management behaviour.

Third, the implementation of the New Delisting Regulations in 2021 may have influenced our results, as firms may manipulate earnings to avoid delisting. To eliminate this potential confounding effect, we exclude observations of the year 2021. The results in Column (3) of Table 5: Hazard model and Heckman two-stage tests

Table 6 demonstrate that the coefficient of $Treat \times Post$ remains significantly negative, further supporting our main findings.

Fourth, we consider the New Audit Reporting Standards implemented in 2018, which aimed to enhance audit report disclosures and improve their decision-usefulness. Since more comprehensive audit reporting may limit managerial opportunism, we control for this potential confounding effect by including a variable, $NewAudit$, which equals one for firms subject to the new standards and zero otherwise. As shown in Column (4) of Table 6, the coefficient of $Treat \times Post$ remains significantly negative after accounting for $NewAudit$, reinforcing the robustness of our main results.

6.4. Additional robustness checks

We perform additional robustness tests to further validate our findings. First, we use two alternative earnings management measures: the Jones model (Jones, 1991), denoted as $EM2$, and Dechow and Dichev's (2002) model, represented as $EM3$. Columns (1) and (2) of Table 7 show that the interaction term $Treat \times Post$ remains significantly negative, corroborating our main results.

Second, we advance the explanatory variable by multiple periods to validate the robustness of our findings. This involves artificially shifting the timing of the national and local tax authority merger to earlier years, thereby generating pseudo-events. If the baseline regression captures a genuine causal effect, these pseudo-events should have no significant impact on earnings management. Specifically, we shift the explanatory variable forward by two, three, and four years and incorporate these variables into Eq. (4). As shown in Columns (3)–(5) of Table 7, the coefficients of $F2Treat \times Post$, $F3Treat \times Post$, and $F4Treat \times Post$ are not significant, lending further support to the credibility and robustness of our main results.

Third, the merger of national and local tax bureaus excludes Tibet, where no local tax bureau exists, and all listed firms remit taxes directly to the national tax authority. In Shanghai, the national tax bureau and the local tax bureau operate as a single team. We therefore exclude observations from Tibet and Shanghai. As shown in Column (6) of Table 7, the coefficient of $Treat \times Post$ remains significantly negative.³

Fourth, the COVID-19 pandemic introduced substantial operational disruptions, leading many firms into financial distress. In response, companies may have engaged in earnings management to conceal losses or qualify for government support programmes. To

² VAT is levied on all transactions involving tangible property, while BT applies to transactions involving intangible assets and real estate. BT is often regarded as a 'quasi-VAT' due to its numerous similarities with VAT (Wang et al., 2019).

³ We conduct additional robustness tests by separately excluding Shanghai (1802 observations) and Tibet (90 observations). The results remain unchanged, validating our findings. For brevity, these results are not tabulated.

Table 6
Controlling for contemporaneous shocks.

	(1)	(2)	(3)	(4)
	BT to VAT Reform	GTP III Project	New Delisting Regulations	New Audit Reporting Standards
Variables	<i>EM</i>	<i>EM</i>	<i>EM</i>	<i>EM</i>
<i>Treat</i> × <i>Post</i>	−0.0066*** (0.002)	−0.0068*** (0.002)	−0.0077*** (0.002)	−0.0055** (0.003)
<i>B2V</i>	−0.0071** (0.003)			
<i>GTP</i>		−0.0018 (0.002)		
<i>NewAudit</i>				−0.0021 (0.002)
Constants and Controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
N	20,941	20,941	18,481	20,941
Adj. R ²	0.1752	0.1749	0.1797	0.1748

Note: This table reports the results after controlling for contemporaneous shocks. Columns (1)–(4) present the results after controlling for the influence of the Business Tax (BT) to Value-Added Tax (VAT) (*B2V*) reform, Golden Tax Project III (GTP III), new delisting regulations, and new audit reporting standards (*NewAudit*), respectively. Robust standard errors clustered by firm are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. All variables are defined in Appendix A.

isolate the effect of tax authority independence from pandemic-related distortions, we exclude data from 2020 and 2021. The results, reported in Column (7) of Table 7, show that *Treat*×*Post* continues to exhibit a significant negative coefficient, further supporting the robustness of our results.

Fifth, increased tax authority independence may prompt firms to engage in aggressive tax planning to minimise tax liabilities. Since tax aggressiveness can facilitate earnings manipulation (Desai and Dharmapala, 2009), this could confound our results. To address this concern, we control for aggressive tax planning using three proxies: book-tax difference (*BTD*), Desai and Dharmapala' adjusted *BTD* (*DBTD*), and effective tax rate (*ETR*), following prior studies (Desai and Dharmapala, 2006). Definitions of these measures are provided in Appendix A. Columns (8)–(10) of Table 7 demonstrate that the negative relationship between tax authority independence and earnings management persists, even after accounting for tax aggressiveness.

Sixth, loss-making firms may have different earnings management incentives than profitable firms that previously benefited from weak tax enforcement before the merger. Loss firms have reduced incentives for downward earnings management and may instead manipulate earnings upward to meet analyst forecasts or avoid delisting. To address this concern, we include loss firms (*Loss* = 1) as an additional control to re-estimate Eq. (1). Column (11) of Table 7 reports a significantly negative coefficient of *Treat*×*Post*, suggesting that our main results are not driven by the presence of loss-making firms. Notably, the positive and significant coefficient of *Loss* (0.0356) indicates that loss firms exhibit greater earnings management. However, their motives are likely driven by financial reporting objectives to smooth losses. We further perform subsample analysis, separating loss and profitable firms. Columns (12) and (13) in Table 7 show that tax authority independence more effectively constrains earnings management among profitable firms. This finding is intuitive, as profitable firms face stronger incentives to minimise tax liabilities and are therefore subject to more pronounced constraining effects from enhanced tax authority independence.

Seventh, Chen et al. (2018) caution that using residuals as dependent variables in a two-step regression procedure can result in biased coefficient estimates and unreliable *t*-statistics. To mitigate this issue, we adopt the alternative two-step regression proposed by Chen et al. (2018), which involves including the first-step explanatory variables used to estimate earnings management as additional controls in the second-step regression (Eq. 4). The results, provided in Table 8, show that the coefficients of *Treat*×*Post* remain significant and negative. Notably, the coefficient in Column (2) of Table 8 closely aligns with the baseline estimate of −0.0068 reported in Table 2, thus reinforcing the robustness of our findings.

Eighth, Hribar and Nichols (2007) highlight that the use of unsigned discretionary accruals may produce biased results. To address this concern, we adopt the control variable approach they propose by incorporating operating volatility, *CFSTD* and *SalesSTD* (see definitions in Appendix A), as additional controls in the second step regression when estimating Eq. (4). As reported in Table 9, the coefficient of *Treat*×*Post* remains significantly negative, consistent with our baseline findings in Table 2, thereby further substantiating the robustness of our findings.

Furthermore, despite controlling for firm- and year-fixed effects, time-varying industry and regional characteristics may still influence our main results. To account for these potential confounding factors, we include industry-, province- and city-fixed effects in the DiD specifications. The results, presented in Panel A of Table 10, show that the inclusion of these additional fixed effects does not alter our key findings.

Finally, we enhance the robustness of our results by performing the DiD analysis using alternative clustering methods for standard errors. Our previous analyses rely on robust standard errors clustered at the firm level. We extend this by clustering robust standard errors at the industry, province, and year levels, as these dimensions may potentially affect our results. For example, the merger of national and local tax authorities takes place at the provincial level, and firms within the same province may be subject to similar

Table 7
Other robustness tests.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Jones model	Dechow & Dichev model	Advancing the merger by 2 years	Advancing the merger by 3 years	Advancing the merger by 4 years	Excluding Shanghai & Tibet	Excluding COVID period	BTD	DBTD	ETR	Control loss firms	Loss firms	Profitable firms
Variables	<i>EM2</i>	<i>EM3</i>	<i>EM</i>	<i>EM</i>	<i>EM</i>	<i>EM</i>	<i>EM</i>	<i>EM</i>	<i>EM</i>	<i>EM</i>	<i>EM</i>	<i>EM</i>	<i>EM</i>
<i>Treat</i> × <i>Post</i>	−0.0053** (0.002)	−0.0063*** (0.002)				−0.0088*** (0.002)	−0.0060** (0.002)	−0.0071** (0.003)	−0.0071*** (0.003)	−0.0071*** (0.003)	−0.0062*** (0.002)	−0.0050 (0.012)	−0.0069*** (0.002)
<i>F2Treat</i> × <i>Post</i>			−0.0003 (0.003)										
<i>F3Treat</i> × <i>Post</i>				0.0003 (0.003)									
<i>F4Treat</i> × <i>Post</i>					−0.0014 (0.004)								
<i>Tax/Loss</i>								0.0003 (0.002)	0.0013 (0.013)	−0.0054 (0.005)	0.0356*** (0.002)		
Constants and Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	20,941	20,941	18,481	20,941	20,941	19,049	15,987	14,650	14,650	14,945	20,941	2134	18,807
Adj. R ²	0.1752	0.1749	0.1797	0.1715	0.1599	0.1679	0.1893	0.1967	0.1967	0.1943	0.2106	0.0653	0.1777

Note: This table reports additional robustness tests. Columns (1) and (2) report the results using alternative measures of earnings management (*EM*). We use the Jones (1991) model and Dechow and Dichev (2002) model to proxy earnings management in Columns (1) and (2). In Columns (3)–(5), we regress *EM* on pseudo-events by shifting the merger of national and local tax authorities (i.e., tax authority independence) into an incorrect year. Column (6) reports the results after excluding Shanghai and Tibet, as they have different tax authority structures. Column (7) reports the results after excluding the influence of COVID-19. Columns (8)–(10) report the result after controlling for aggressive tax planning. Column (11) reports the results after controlling for loss-making firms (*Loss* = 1; 0 otherwise). Columns (12) and (13) present the results for loss-making and profitable firms, respectively. Robust standard errors clustered by firm are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. All variables are defined in Appendix A.

Table 8
Alternative two-step regression following [Chen et al.'s \(2018\)](#) approach.

Variables	(1)	(2)
	EM	EM
<i>Treat</i> × <i>Post</i>	−0.0064*** (0.002)	−0.0067*** (0.002)
<i>Size</i>		−0.0081*** (0.002)
<i>Leverage</i>		0.0026 (0.006)
<i>ROA</i>		0.0264** (0.010)
<i>Inventory</i>		0.0004 (0.008)
<i>Growth</i>		−0.0030* (0.002)
<i>Opinion</i>		0.0252*** (0.006)
<i>OwnCon</i>		0.0030* (0.002)
<i>Board</i>		0.0022 (0.003)
<i>Duality</i>		0.0001 (0.002)
<i>IndeDir</i>		−0.0023 (0.007)
<i>GDP</i>		0.0085** (0.004)
<i>Population</i>		0.0054 (0.004)
<i>Deficit</i>		−0.0011 (0.001)
<i>AIN</i>	−0.0024*** (0.000)	−0.0028*** (0.001)
<i>PPEA</i>	0.0084*** (0.003)	0.0069** (0.003)
<i>REVRECA</i>	0.0028** (0.001)	0.0026** (0.001)
Constant	0.0553*** (0.001)	0.1085 (0.069)
Firm FE	Yes	Yes
Year FE	Yes	Yes
N	20,941	20,941
Adj. R ²	0.1744	0.1803

Note: This table reports results using the two-step regression proposed by [Chen et al. \(2008\)](#), where we include the first-step regression explanatory variables used to estimate earnings management in the second-step regression (Column 2). The first-step regression explanatory variables are: *AIN* representing $\frac{1}{TA_{i,t-1}}$, *PPEA* representing $\frac{\Delta REV_{i,t} - \Delta REC_{i,t}}{TA_{i,t-1}}$, and *REVRECA* representing $\frac{PPE_{i,t}}{TA_{i,t-1}}$. Robust standard errors clustered by firm are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. All variables are defined in Appendix A.

regional events. As shown in Panel B of [Table 10](#), the *Treat*×*Post* coefficients remain significant and negative across all clustering specifications, confirming the robustness of our findings.

7. Conclusion

This study uses the merger of national and local tax authorities to investigate the effect of tax authority independence on corporate earnings management. Our findings demonstrate the critical role of tax authority independence in constraining earnings management. This negative relationship is particularly pronounced in firms engaging in downward earnings management, as well as in non-SOEs, firms without political connections, those audited by non-Big-4 auditors, and firms headquartered in regions with weak legal frameworks. Furthermore, we establish that enhanced tax enforcement and corporate governance serve as mechanisms through which tax authority independence mitigates earnings manipulation.

Our study provides important practical implications. First, our findings underscore the substantial impact of the tax collection reform, namely, the merger of national and local tax authorities. This reform has not only strengthened tax enforcement capacity but

Table 9
Tax authority independence and earnings management with operating volatility.

Variables	(1)	(2)	(3)
	Control CFOSTD	Control SaleSTD	Control Both
	EM	EM	EM
<i>Treat</i> × <i>Post</i>	−0.0063** (0.003)	−0.0065** (0.003)	−0.0065** (0.003)
<i>Size</i>	−0.0089*** (0.002)	−0.0086*** (0.002)	−0.0085*** (0.002)
<i>Leverage</i>	−0.0036 (0.006)	−0.0039 (0.006)	−0.0041 (0.006)
<i>ROA</i>	0.0300*** (0.011)	0.0293*** (0.011)	0.0291*** (0.011)
<i>Inventory</i>	0.0091 (0.009)	0.0093 (0.009)	0.0092 (0.009)
<i>Growth</i>	−0.0030 (0.002)	−0.0037 (0.002)	−0.0037 (0.002)
<i>Opinion</i>	0.0242*** (0.006)	0.0238*** (0.006)	0.0238*** (0.006)
<i>OwnCon</i>	0.0019 (0.002)	0.0016 (0.002)	0.0016 (0.002)
<i>Board</i>	0.0018 (0.003)	0.0014 (0.003)	0.0013 (0.003)
<i>Duality</i>	0.0002 (0.002)	0.0002 (0.002)	0.0001 (0.002)
<i>IndeDir</i>	−0.0023 (0.008)	−0.0014 (0.008)	−0.0017 (0.008)
<i>GDP</i>	0.0080** (0.004)	0.0079** (0.004)	0.0079** (0.004)
<i>Population</i>	0.0066 (0.005)	0.0065 (0.004)	0.0064 (0.004)
<i>Deficit</i>	−0.0020 (0.001)	−0.0020 (0.001)	−0.0020 (0.001)
<i>CFOSTD</i>	0.0088** (0.004)		0.0079** (0.004)
<i>SaleSTD</i>		0.0194*** (0.005)	0.0180*** (0.005)
Constant	0.1443* (0.074)	0.1391* (0.074)	0.1374* (0.074)
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
N	17,697	17,697	17,697
Adj. R ²	0.1887	0.1893	0.1902

Note: This table reports the regression results after considering operating volatility following Hribar and Nichols (2007). Earnings management (*EM*) is regressed in year *t* on tax authority independence (*Treat*×*Post*) and the control variables in year *t* − 1. Robust standard errors clustered by firm are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. All variables are defined in Appendix A.

also generated spillover effects on corporate behaviour, including improved corporate governance and reduced earnings management. These insights are particularly relevant for policymakers, as they highlight the broad implications of the reform and prompt a deeper evaluation of its overall net benefits.

Second, our study demonstrates how tax authority independence can enhance overall market efficiency. Increased tax authority independence contributes positively to market dynamics by curbing earnings management and promoting fair competition among firms. Future research should explore the role of tax-related stakeholders in shaping market efficiency.

Finally, our findings provide valuable insights for investment decision-making. Investors may perceive firms operating in jurisdictions with more tax authority independence as less prone to earnings manipulation, potentially leading to improved stock valuations and efficient capital allocation. This understanding can bolster investor confidence and trust in financial reporting quality.

Ethical approval

This article does not contain any studies with human participants or animals performed by any of the authors.

Author statement

1. Submission purpose and importance

In this paper, we present our findings on tax authority changes and its effect on earnings management. We believe that our findings would make a significant contribution to the drivers of earnings management.

Table 10
Additional robustness tests.

Panel A: Results by different fixed effects.					
	(1)	(2)	(3)	(4)	(5)
Variables	EM	EM	EM	EM	EM
<i>Treat</i> × <i>Post</i>	−0.0050** (0.002)	−0.0068*** (0.002)	−0.0070*** (0.002)	−0.0062*** (0.002)	−0.0063*** (0.002)
Constants and Controls	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Industry×Year FE	Yes				
Province×Year FE		Yes			
Industry×Province FE			Yes		
Industry×Province ×Year FE				Yes	
City×Year FE					Yes
N	20,941	20,941	20,941	20,941	20,941
Adj. R ²	0.1793	0.1767	0.1764	0.195	0.1803

Panel B: Results by different clustering methods for standard errors.						
	(1)	(2)	(3)	(4)	(5)	(6)
Variables	EM	EM	EM	EM	EM	EM
<i>Treat</i> × <i>Post</i>	−0.0068*** (0.002)	−0.0068* (0.003)	−0.0068** (0.002)	−0.0068* (0.004)	−0.0068** (0.002)	−0.0068** (0.003)
Constants and Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	20,941	20,941	20,941	20,941	20,941	20,941
Adj. R ²	0.1749	0.1749	0.1749	0.1749	0.1749	0.1749

Note: Table 10 Panel A reports the results using different fixed effects. Robust standard errors clustered by firm are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. All variables are defined in Appendix A.

Note: Table 10 Panel B reports the results using different clustering methods for standard errors. Robust standard errors clustered by different clustering methods are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. All variables are defined in Appendix A.

2. Methodology and data source

Our primary data is China's listed firms. We used DID method to analyze data. And we employed multiple methods to testify the validity of regression.

3. Research results and conclusions

We find that increased tax authority independence significantly reduces earnings management, particularly for firms engaging in downward earnings management. Additionally, we observe that this negative correlation is influenced by factors such as ownership structure, political connections, audit quality, and legal environment. Furthermore, we demonstrate that enhanced tax enforcement and corporate governance serve as channels through which the independence of tax authorities mitigates earnings manipulation.

4. Contribution

Our findings not only enrich the drivers of earnings manipulation for firms in China, the biggest emerging economy country in the world, but also offer insights into understanding the consequences of tax authority independence.

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Declaration of competing interest

The authors declare that they have no conflict of interest.

Appendix A. Variable definitions

Variable	Definition
Dependent variables	
<i>EM</i>	Earnings management. The absolute value of the discretionary accruals is measured using a modified Jones model (Dechow et al., 1995).
<i>EM2</i>	An alternative measure for earnings management. The absolute value of the discretionary accruals is measured using the Jones model (Jones, 1991).
<i>EM3</i>	An alternative measure for earnings management. The absolute value of the discretionary accruals is measured using Dechow and Dichev's (2002) model.
Independent variables	
<i>Treat</i>	A dummy variable. 1 = firms affected by the merger of the national and local authorities, 0 = otherwise.
<i>Post</i>	Policy shock. A dummy variable. 1 = after 2017, 0 = otherwise.
Control variables	
<i>Size</i>	Natural logarithm of the total assets.
<i>Leverage</i>	The ratio of total debts divided by total assets.
<i>ROA</i>	Net profit divided by total assets.
<i>Inventory</i>	Ratio of inventory deflated by total assets.
<i>Growth</i>	Total assets growth rate. The ratio of the increase in a company's total assets for the current year to the total assets at the beginning of the year.
<i>Opinion</i>	A dummy variable. 1 = non-standard audit opinion, 0 = otherwise.
<i>OwnCon</i>	Ownership Concentration. Ratio of the shares owned by the second to fifth shareholders to the largest shareholders.
<i>Board</i>	Board size. Natural logarithm of the number of board members.
<i>Duality</i>	CEO duality. 1 = CEO is chair of the board, 0 = otherwise.
<i>IndeDir</i>	The percentage of independent directors on the board, measured as the number of independent directors divided by the total number of directors.
<i>GDP</i>	Provincial GDP per capita.
<i>GDPGrowth</i>	Provincial GDP growth rate.
<i>Population</i>	Natural logarithm of provincial population.
<i>Deficit</i>	The natural logarithm of the budgetary fiscal expenditure minus the budgetary fiscal revenue.
<i>Regpay</i>	Average regional wage.
<i>SOE</i>	A dummy variable. 1 = SOEs, 0 = otherwise.
<i>PCON</i>	Political connection. 1 = firms with political connections, 0 = otherwise. Political connections are measured if an executive: (1) is a member of the National People's Congress, (2) is part of the National Committee of the Chinese People's Political Consultative Conference, or (3) served as a government official at the provincial, municipal, or county level before assuming the role of the executive in a listed firm.
<i>LawIndex</i>	The provincial law index, developed by Wang et al. (2018) to measure the legal environment of a region.
<i>TEI</i>	Tax enforcement, measured as provincial tax revenue, including both national and local taxes, deflated by provincial GDP.
<i>GovernanceIndex</i>	Corporate governance index, sourced from Huazheng ESG ratings.
<i>ManOwnership</i>	Managerial shareholdings, measured by the percentage of a firm's shares owned by managers
<i>LnLitigation</i>	Number of litigation cases, measured by the natural logarithm of the number of corporate lawsuits.
<i>B2V</i>	A measure for business tax to value-added tax reform. 1 = firms affected by the reform. 0 = otherwise.
<i>GTP</i>	A measure for Golden Tax Project III (GTP III). 1 = firms affected by GTP III, 0 = otherwise.
<i>BTD</i>	Following Hanlon and Heitzman (2010), book-tax difference = $\{ \text{Total pre-tax accounting income} - [(\text{Total tax expense} - \text{Deferred income tax expense}) / (\text{Tax rate})] \} / \text{Total pre-tax accounting income}$
<i>DDBTD</i>	The Desai and Dharmapala (2006) residual <i>BTD</i> equals the residual from the following firm fixed effects regression: $DDBTD_{i,t} = \gamma_1 \times TACC_{i,t} + \mu_i + \varepsilon_{i,t}$, where <i>BTD</i> is the total book-tax difference, and <i>TACC</i> is total accruals calculated as net income minus operating cash flows divided by lagged total assets.
<i>ETR</i>	Following Hanlon and Heitzman (2010), effective tax rate = $(\text{Total income tax expense} / \text{Total pre-tax accounting income}) - (\text{Deferred income tax expense} / \text{Total pre-tax accounting income})$
<i>CFOSTD</i>	The standard deviations of cash flows from operations deflated by total assets over the current and prior four years.
<i>SalesSTD</i>	The standard deviations of sales deflated by total assets over the current and prior four years.

Appendix B. PSM balance test results

Variables	Unmatched	Mean		t-test		
		Matched	Treated	Control	t	p > t
<i>Size</i>	U		21.945	22.215	-13.12	0.000
	M		21.947	21.951	-0.16	0.875
<i>Leverage</i>	U		0.3838	0.4389	-16.36	0.000
	M		0.3842	0.3839	0.09	0.930
<i>ROA</i>	U		0.0384	0.0347	3.55	0.000
	M		0.0384	0.0373	0.76	0.448
<i>Inventory</i>	U		0.1187	0.1484	-12.93	0.000
	M		0.1188	0.1161	1.7	0.244
<i>Growth</i>	U		0.2184	0.155	12.18	0.000
	M		0.2165	0.2175	-0.12	0.902
<i>Opinion</i>	U		0.0135	0.014	-0.29	0.773
	M		0.0135	0.0141	-0.26	0.796
<i>OwnCon</i>	U		0.8178	0.7181	9.93	0.000

(continued on next page)

(continued)

Variables	Unmatched		Mean		t-test	
	Matched		Treated	Control	t	p > t
Board	M		0.8163	0.8121	0.32	0.749
	U		2.3615	2.395	-9	0.000
Duality	M		2.3618	2.3649	-0.65	0.513
	U		0.3355	0.2575	10.78	0.000
IndeDir	M		0.3349	0.3293	0.6	0.551
	U		0.3865	0.3797	5.85	0.000
GDP	M		0.3849	0.3864	0.07	0.946
	U		11.815	11.577	18.96	0.000
Population	M		11.814	11.811	0.21	0.835
	U		6.4632	6.384	7.03	0.000
Deficit	M		6.4625	6.4569	0.41	0.683
	U		14.786	14.622	9.3	0.000
	M		14.785	14.779	0.26	0.792

Note: This table reports the results of the PSM balance test. The *t*-test results show that the differences between the treated and the control samples after matching are all insignificant, which indicates that the matching effect is effective.

Appendix C. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ememar.2025.101412>.

Data availability

Data will be made available on request.

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