"Onto-Balance Sheet" Accounting under Principle-Based Consolidation Standards: Evidence from State-Owned Enterprises in China

Shanshan Zhang
sszhang@bjtu.edu.cn
Beijing Jiaotong University

Mingwei Zhang
(Corresponding author)
mwzhang@bjtu.edu.cn
Beijing Jiaotong University

Mingyu Chen
m.chen21@lancaster.ac.uk
Lancaster University

Xiaoke Cheng
xkcheng@bjtu.edu.cn
Beijing Jiaotong University

Running Head: "Onto-Balance Sheet" Consolidation Accounting in State-Owned Enterprises

We greatly appreciate the encouragements and helpful comments of Stephen Penman, Linda Myers, Cathy Shakespeare, Igor Goncharov, Steve Young, Colin Clubb, Deming Dai, Kangtao Ye, and workshop participants at Lancaster University, King's College London, Renmin University of China, Shanghai Jiaotong University, Xiamen National Accounting Institute, Dongbei University of Finance and Economics, and Beijing Jiaotong University. This study is supported by the National Natural Science Foundation of China (Project No.: 72272009, 72272008), Beijing Philosophy and Social Science Foundation (Project No.: 24DTR030), Fundamental Research Funds for the Central Universities of China (Project No.: 2024YJS070), and Research Center for Central and Eastern Europe at Beijing Jiaotong University.

Conflict of interest disclosure: The authors declare no conflict of interests.

Shanshan Zhang, Beijing Jiaotong University, School of Economic and Management, Department of Accounting, Beijing, China; Mingwei Zhang, Beijing Jiaotong University, School of Economic and Management, Department of Accounting, Beijing, China; Mingyu Chen, Lancaster University, Management School, Department of Accounting and Finance, Lancaster, United Kingdom and Xiaoke Cheng, Beijing Jiaotong University, School of Economic and Management, Department of Accounting, Beijing, China.

Data Availability: The data that support the findings of this study are publicly available and can be accessed upon request.

JEL Classifications: M41

Keywords: scope of consolidation; accounting discretion; financial reporting strategy; state-owned enterprises (SOEs)

"Onto-Balance Sheet" Accounting under Principle-Based Consolidation Standards: Evidence from State-Owned Enterprises in China

ABSTRACT

To prevent firms from hiding losses and risks in unconsolidated subsidiaries, standard setters have progressively broadened the scope of consolidation, which results in greater managerial discretion in adding entities for consolidation. We examine whether State-Owned Enterprises (SOEs) with higher state ownership, hence stronger empire-building incentives, are more inclined to exploit this discretion to consolidate additional investees. China's mixed-ownership reform, which introduces non-state blockholders and reduces state ownership, provides an ideal setting. We find that SOEs are less likely to exploit the discretion to consolidate their investees after the reform. The decline is sharper when accounting standards allow greater discretion, when consolidation yields larger asset increases, and when the government places greater emphasis on expansion. Further analyses reveal that consolidation accounting generates real benefits, which diminish after the reform. Our study provides novel evidence on aggressive consolidation under principle-based accounting standards and offers insights for standard setters refining the consolidation boundary.

Keywords: scope of consolidation; accounting discretion; financial reporting strategy; state-owned enterprises (SOEs)

We affirm that the authors did not use generative AI tools in developing this manuscript.

I. SYNOPSIS AND INSIGHTS FOR PRACTICE

In response to firms' tendency to hide losses and risks in unconsolidated subsidiaries, standard setters have progressively widened the scope of consolidation in history (Nobes 2014). The current consolidation model under the International Financial Reporting Standards (IFRS) uses the principle-based concept of de facto control, restricting firms' ability to exclude parent-controlled entities with ownership just below the majority threshold, a practice common under the previous ownership-based consolidation model. However, it also grants firms greater discretion in adding entities for consolidation, because control can now be asserted through softer mechanisms without majority ownership. We argue that this approach has its limitations: managers with empire-building incentives may exploit such discretion to consolidate non-parent-controlled investees to inflate reported asset size, because consolidation results in a larger firm asset size than the equity method. We refer to this behavior as "onto-balance sheet" consolidation accounting.

Our study focuses on Chinese state-owned enterprises (SOEs).[1] The Chinese government expects SOEs to undertake social welfare responsibilities, such as maintaining employment and stabilizing prices (Bai, Li, Tao, and Wang 2000; Bova and Yang 2018). Because large firms can better fulfil these tasks, the government tends to provide greater subsidy support to larger SOEs (Wu, Wang, Luo, and Gillis 2012) and design performance evaluation systems that are more favorable to large SOEs' executives by emphasizing size-based metrics (Du, Tang, and Young 2012). Consequently, SOEs have strong empire-building incentives. This incentive intensifies with higher state ownership, which enhances government influence over firms' expansion decisions. Accordingly, this study examines whether higher (lower) state ownership strengthens (weakens) SOEs' tendency to exploit consolidation discretion to include additional

[1] SOEs are firms whose ultimate controller is a government agency (central or local). In China, the Company Law defines the ultimate controller as a person or entity that can effectively dominate a company's decisions through ownership, agreements, or other arrangements, a notion broadly aligned with the idea of de facto control. Consequently, state control may persist even when the government's ownership stake falls below 50%.

investees and inflate reported asset size.

The mixed-ownership reform in China offers an ideal research setting. Launched in 2013 as an integral part of China's privatization efforts, the reform introduced non-state strategic investors into SOEs. Indeed, 10.61% of SOEs in our sample brought in non-state blockholders holding more than 5% of shares. In all such cases, the entry of non-state blockholders reduced state ownership, from an average of 42.8% before the reform to 35.4% afterwards. If higher state ownership strengthens SOEs' consolidation tendency, we predict that the reform should weaken this tendency by lowering state ownership. We document evidence consistent with this prediction. We find that, following the mixed-ownership reform, reformed SOEs became significantly less likely than non-reformed SOEs to consolidate their non-wholly-owned investees. Cross-sectional analyses show that this result is more pronounced when SOEs' ownership and voting-right structures afford them greater discretion in determining consolidation, when the investee firm is relatively large compared with the investor firm, and when SOEs are tasked with more political responsibilities for which a larger firm size can be advantageous. These results are consistent with the interpretation that reduced state ownership after the reform weakens SOEs' incentives to expand, making them less likely to exploit consolidation discretion to enlarge their reported size.

In additional analyses, we find that the benefits SOEs and their executives derive from onto-balance sheet consolidation accounting, including greater government subsidies, higher compensation, and better political promotion opportunities, are greater before the reform and diminish afterward. These results further support the view that the decline in state ownership decreases the benefits of appearing larger and lowers SOEs' tendency to consolidate investees.

This study contributes to the literature in the following aspects. First, our study provides insights for standard setters' further revision of consolidation standards.[2] Our findings suggest

[2] For example, the FASB is considering revising its consolidation model. See the "Consolidation for Business Entities" project on www.fasb.org.

that progressively widening the scope of consolidation and allowing for increased discretion to include investees onto consolidated statements have limitations. Particularly in contexts where there are strong incentives for size expansion, firms tend to exploit this discretion to consolidate more investees. Such discretionary consolidation may obscure financial reporting. Consequently, we propose that standard setters pay attention not only to off-balance sheet investees that should be consolidated, but also to on-balance sheet investees that should not be consolidated.

Second, our study contributes to the literature regarding how managerial incentives, in addition to accounting standards, shape financial reporting (Ball, Robin, and Wu 2003; Christensen, Lee, Walker, and Zeng 2015). Prior research shows that firms tend to avoid consolidation to conceal debt and losses (Heian and Thies 1989; Hsu and Pourjalali 2015). In contrast, we show that Chinese SOEs, especially those with higher state ownership, face strong incentives to expand, which outweigh their incentives to hide debt and losses and lead them to consolidate more. Our results should be generalizable to other settings where empire-building incentives dominate incentives to understate risks and losses.

Third, we focus on the context of SOEs, thus providing new cases illustrating the real effects of consolidation standards (Ewert and Wagenhofer 2005; Zhang 2013). We find that SOEs and their executives obtain *real* benefits as they expand *book* assets. Complementing prior findings that market participants can be misled by consolidation accounting (Hsu, Duh, and Cheng 2012; Hsu, Pourjalali, and Ronen 2023; Khurana 1991), our study indicates that government authorities may also rely mechanically on consolidated figures.

Ⅱ. PRIOR LITERATURE AND HYPOTHESIS DEVELOPMENT

The Development of Consolidation Accounting Standards

Existing literature has extensively discussed the financial statement benefits of the equity method compared to consolidation. First, by keeping certain investees unconsolidated, firms

can remove a portion of liabilities from the balance sheet, thus hiding associated risks (Benis 1979; Heian and Thies 1989; Mohr 1988). Second, unconsolidated reporting enables investor firms to hide losses in investees. For example, a loss-making investor firm may sell products to an investee at above arm's-length prices and retain a portion of the resulting unrealized profits under the equity method, thereby shifting its own losses to the investee, whereas such profits would be fully eliminated under consolidation (Benston and Hartgraves 2002; Feng, Gramlich and Gupta 2009). These considerations provide firms with incentives not to consolidate.

To restrict such practices, standard setters have performed at least two significant expansions of consolidation scope. First, the criteria for defining a reporting entity shifted from majority ownership to de facto control.[3] This shift responds to concerns that the ownership-based approach grants managers leeway to avoid consolidation by structuring subsidiaries' ownership just below the 50% threshold. In contrast, the de facto control approach does not have such a brightline. Hsu et al. (2012) find that the shift from an ownership-based to a control-based consolidation approach significantly enhanced the value relevance of financial statements. Hsu and Pourjalali (2015) find that the change also improved investors' ability to predict future earnings. The second major expansion of consolidation scope involves the consolidation of Special Purpose Entities (SPEs).[4] Hsu et al. (2023) document a higher earnings response coefficient after banks are required to consolidate qualified SPEs.

Discretion in Consolidated Reporting

The principle-based concept of de facto control effectively expands the scope of

[3] For example, IAS 3 required firms to consolidate investees with majority ownership (IASC 1976), while IAS 27 superseded IAS 3 and implicitly introduced the concept of de facto control by defining control as "the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities" (IASC 1989). Then, IFRS 10 superseded IAS 27 and more explicitly applied the concept of de facto control by redefining control and its three elements (IASB 2011). Under U.S. GAAP, the voting interest model continues to use the majority ownership criteria as the basis. However, the variable interest entity (VIE) model uses power, risk, and reward criteria and can be seen as an attempt to deviate from the traditional approach and get closer to the de facto control criteria (FASB 2003, 2009).

[4] The second expansion of consolidation scope results in FIN 46R under U.S. GAAP and SIC-12 under IFRS (FASB 2003; IASC 1998). Subsequently, the IASB develops a single consolidation model in IFRS 10 by incorporating SIC-12 into IAS 27 and redefining "control" to include both scenarios: control through ownership and control through contracts (the SPE case).

consolidation, but also permits greater discretion in consolidation. For example, under IAS 27, control may be presumed with less than 50% ownership, provided that the investor firm can demonstrate control through shareholder agreements, corporate statutes, or influence over the board. IAS 27 thus allows for a higher degree of discretion compared to the traditional 50% ownership criteria. In practice, different shareholders may control different aspects of an investee's financial or operating policies, making consolidation a matter of negotiation.

IFRS 10 more explicitly introduces principle-based elements than IAS 27. When determining whether control arises from less than 50% ownership, investor firms should consider all facts and circumstances, including the size of their voting rights relative to the size and dispersion of other investors' voting rights, potential voting rights, rights arising from other contractual agreements, and the voting rights exercised in previous shareholder meetings. Judgments based on a comprehensive evaluation of the above information involve even greater discretion than the IAS 27 case.[5]

The discretion was intended to ensure the consolidation of investees controlled through mechanisms beyond ownership or board representation, such as resource dependence or contractual arrangements. However, it also grants firms considerable flexibility, providing firms with the opportunity to include or exclude certain investees based on their incentives. Such discretion can be exercised not only in determining whether to consolidate newly acquired investees, but also in deciding whether to include previously unconsolidated investees or to deconsolidate previously consolidated ones.[6]

[5] Moreover, investor firms also have considerable leeway in identifying whether the economic activities they direct are relevant to investees' returns, in comparing their power with other investors, and in determining whether the right they possess are substantive rights.

[6] Regarding how firms can use consolidation discretion to change consolidation scope, a typical example is Hua Yuan Pharmaceutical Co., Ltd. (HY, SH.600656). HY held 42.05% of Jiang Shan Pharmaceutical Co., Ltd. (JS), while another shareholder, China BBCA Group Co., Ltd. (BBCA), effectively controlled more than 50% through two subsidiaries. Despite this, HY consolidated JS from 2002 to 2005, arguing that it exercised control by appointing JS's key executives. When JS's performance deteriorated in 2006, HY deconsolidated it, citing BBCA's majority control. At that time, China's consolidation standards had largely converged with IAS 27. So this case illustrates how firms could apply different interpretations of IFRS-like consolidation standards to serve changing incentives. Two additional cases, Nanjing Zhongbei (Group) Co., Ltd. (NZG, SZ.000421) and GD Power Development Co., Ltd. (GDPD, SH.600795), further support this point. NZG and GDPD deconsolidated previously consolidated investees (Nanjing Zhongbei Veolia Transportation and Passenger Service Co., Ltd.

SOEs' Size-Expansion Incentives Driven by State Ownership

SOEs undertake many political missions that profit-pursuing private firms are unwilling to engage in, including making significant investments during crises (Deng, Morck, Wu and Yeung 2015), ensuring a stable supply of social services (Boubakri, Cosset, and Guedhami 2009), and increasing employment (Bai et al. 2000). It is generally agreed that larger SOEs can better fulfil these obligations. For example, the Chinese government believes that large SOEs are better able to implement government policies and stabilize the economy,[7] to control the national economic growth and compete in global markets,[8] to undertake large-scale innovation projects,[9] to provide essential public services and safeguard people's wellbeing, and to control strategic industries and key sectors vital to national security and the lifeline of the national economy.[10] In reviewing the past century's development in 2021, the government summarizes that "we should unswervingly support SOEs to become stronger, better, and larger, enhancing their competitiveness, innovation, control power, influence, and risk resistance capabilities."[11]

The government uses at least two methods to encourage SOE asset expansion. The first is through government subsidies. Prior research indicates that larger SOEs contribute more to political missions and thus receive more subsidies. For example, Wu et al. (2012) document that the government reduces the effective tax rates of SOEs with larger asset size to reward their contribution to social welfare. Large SOEs are also more likely to receive bailouts in the event of default due to their broader economic and employment impact, the so-called "too big

and Qiongtongxia Aluminium Industry Power Generation Co., Ltd.) in 2010 and 2014, respectively, without any change in ownership. Specifically, NZG simply stated that it began jointly managing the investee's financial and operational affairs with another shareholder, while GDPD cited a loss of independent control, both relying on soft mechanisms that suggest a high degree of managerial discretion. These cases show that firms indeed have discretion in revising the scope of consolidation.

[7] See "Decision of the Central Committee of the Communist Party of China on Several Major Issues Concerning the Reform and Development of State-owned Enterprises," Guangming Daily, September 27, 1999.

[8] See "Decision of the Central Committee of the Communist Party of China on Several Issues Concerning the Improvement of the Socialist Market Economic System," State Council Gazette, No. 34, 2003.

[9] See "Decision of the Central Committee of the Communist Party of China on Several Major Issues Concerning Comprehensively Deepening Reform," the Xinhua News Agency, November 15, 2013.

[10] See "Guiding Opinions of the Central Committee of the Communist Party of China and the State Council on Deepening the Reform of State-owned Enterprises," State Council Gazette, No. 27, 2015.

[11] See "Resolution of the Central Committee of the Communist Party of China on the Party's Major Achievements and Historical Experience in its Centennial Struggle," the Xinhua News Agency, November 16, 2021.

to fail" effect (Dong, Hou, and Ni 2021).

The second approach is to establish size-based performance evaluation metrics, which determine SOE executives' compensation and political promotion (Hung, Wong, and Zhang 2012). Since its establishment in 2003, the State-Owned Assets Supervision and Administration Commission (SASAC) has emphasized both efficiency and size indicators in assessing SOE performance. For example, the "Measures for the Evaluation of Business Performance of Central SOE Executives" issued in 2003 includes not only an efficiency metric (return on equity) but also emphasizes size-related metrics such as consolidated pretax income, asset value preservation and appreciation rate, and revenue growth. The metric of consolidated pretax income rewards SOEs that generate a larger amount of pretax income, typically observed in larger firms. The latter two metrics reward SOEs that become larger in assets and revenue compared with the previous year. SASAC revised the "Measures" five times from 2006 to 2019, consistently retaining size-based indicators.[12] Du et al.'s (2012) interviews with SASAC officials and SOE CFOs confirm SASAC's favoritism for large firms.

Hypothesis

Chinese Accounting Standard No. 33 (CAS 33) substantially converged with IAS 27 from 2006 to 2014 and with IFRS 10 after 2014. Both standards provide firms considerable discretion in consolidation decisions, allowing them to deviate from strict ownership criteria. Instead, they can rely on softer mechanisms and flexible interpretations when determining the scope of consolidation and thus choose either consolidation or the equity method based on their incentives, especially when the ownership is below 50%.

State ownership gives Chinese SOEs strong asset expansion incentives through size-related government subsidies and performance evaluations. Because consolidation increases

[12] In 2009, the return on equity was changed to the economic value added. In 2012, operating revenue growth was changed to the total asset turnover rate. Since 2016, the performance evaluation indicators vary according to whether the SOEs are classified as functional SOEs or commercial SOEs. But regardless of the type of SOEs, asset value preservation and appreciation rate and pretax income are the primary indicators for performance evaluation.

reported asset size relative to the equity method, SOEs are highly motivated to consolidate their investees. Although consolidation also introduces more liabilities and eliminates unrealized profits from parent-subsidiary transactions, these concerns are likely to be outweighed when empire-building incentives are sufficiently strong. Such incentives intensify as state ownership rises, because the government becomes both more willing and more able to link subsidies and performance evaluations to firm size. It is more willing because higher state ownership strengthens SOEs' alignment with government interests, making their expansion better serve public objectives. It is more able because higher state ownership also gives the government stronger control over SOEs' boards and shareholder meetings, enabling more direct enforcement of size-based evaluations. Therefore, SOEs with higher state ownership should be more likely to exercise discretion to consolidate additional investees and enlarge their reported asset base. We state our hypothesis as follows.

Hypothesis: Under principle-based consolidation standards, higher state ownership increases SOEs' likelihood to consolidate their non-wholly-owned investees.

Ⅲ. RESEARCH DESIGN

We empirically test the hypothesis using the mixed-ownership reform in China. The reform was launched in late 2013 after the Third Plenary Session of the 18th Central Committee of the Communist Party of China, and is widely considered the third wave of privatization in China.[13] It provides non-state investors, including individuals, private firms, and foreign firms, the chance to become strategic shareholders of SOEs. The entry of non-state investors effectively reduces state ownership. If higher state ownership is associated with SOEs' stronger consolidation tendency, then this tendency should weaken as state ownership declines following the reform.

[13] The first-round privatization started in the early 1990s, in which SOEs went public on stock exchanges and issued tradable shares to non-SOEs and individual investors. But non-tradable shares still dominate the ownership structure. The second-round privatization started in 2005 and is known as the split share structure reform. This reform served as a legacy of the first-round privatization, aiming to change non-tradable shares to tradable shares (Liao, Liu, and Wang 2014).

The mixed-ownership reform was directed by the State Council and implemented in multiple successive batches.[14] During our sample period, five batches were rolled out in 2014, 2016, 2017, 2018, and 2019, each approved by the National Development and Reform Commission (NDRC) and the SASAC at either the central or the local level.[15] The reform's policy-level exogeneity and staggered rollout provide a suitable setting to examine the relationship between state ownership and SOEs' consolidation decisions (Li, Yang, and Yin 2022). Combined with investor firm- and year-fixed effects, this setting allows us to implement a staggered difference-in-difference (DiD) design. Our model specification is as follows, using investor firm-investee-year level data:

$$\begin{aligned} CONSOLIDATE_{i,j.t} &= \beta_0 + \beta_1 REFORM_{i,t} + \beta_2 SHARE_{i,j,t} + \beta_3 SHARE50_{i,j,t} \\ &+ \beta_4 SIZE_{i,t} + \beta_5 ROEGAP_{i,j,t} + \beta_6 LEVGAP_{i,j,t} + \beta_7 MERGE_{i,t} + \beta_8 LNMTB_{i,t} \\ &+ \beta_9 AGE_{i,t} + \beta_{10} TOPHOLD_{i,t} + \beta_{11} MONITOR_{i,t} + \beta_{12} INST_{i,t} + \beta_{13} BOARDSIZE_{i,t} \\ &+ \beta_{14} INDEP_{i,t} + \beta_{15} DUAL_{i,t} + \beta_{16} EXEHOLD_{i,t} + \beta_{17} BIG4_{i,t} \\ &+ \sum Investor\ Firm\ Fixed\ Effects + \sum Year\ Fixed\ Effects + \varepsilon_{i,j,t} \end{aligned} \quad (1)$$

where *i*, *j*, and *t* denote the investor firm, the investee firm, and the year, respectively. All investor firms are SOEs. The dependent variable, *CONSOLIDATE*, is an indicator that equals one if the investee firm *j* is consolidated by the investor firm *i*, and zero if it is disclosed as an associate or joint venture. The independent variable, *REFORM*, is an indicator that equals one if an SOE has completed the mixed-ownership reform, and zero otherwise. Because the government does not publicly announce the full list of firms participating in the reform, we use observed changes in ownership structure to identify reform completion. Specifically, reform completion is identified by two conditions: (i) the entry of a non-state blockholder, defined as a shareholder owning more than 5% of equity following prior research (Dlugosz, Fahlenbrach,

[14] See "The State Council's Opinions on the Development of a Mixed-Ownership Economy by State-Owned Enterprises" issued by the State Council in 2015.

[15] See "Opinions on Several Policies for Deepening the Pilot Program of Mixed-Ownership Reform" issued by NDRC in 2017. At the central level, two SOEs implemented the reform in 2014, followed by nine in 2016, ten in 2017, 31 in 2018, and 107 in 2019. Provinces such as Shandong, Shanxi, Tianjin, Zhejiang, Liaoning, and Guangdong also applied the reform broadly. For instance, in 2018, Shandong applied the reform to 93 firms, Shanxi to 108, and Tianjin to 232. See "New Trends in the Mixed-Ownership Reform of State-Owned Enterprises," State-Owned Assets Report Magazine, April 1, 2019.

Gompers, and Metrick 2006; Cai, Hillier, and Wang 2016), and (ii) a concurrent decrease in state ownership.[16] Under this definition, reformed SOEs' average state ownership declines from 42.8% to 35.4% upon reform completion. We alert readers that, while the reform itself is policy-driven and exogenous, firm-level blockholder entry and ownership changes may not be fully exogenous. Accordingly, the DiD treatment group consists of SOEs that satisfy the two conditions above during the sample period, while the control group includes SOEs that do not, covering both SOEs unaffected by the reform and those exposed to it but without a non-state blockholder entry that coincides with a decline in state ownership. Consistent with our hypothesis, we expect a negative coefficient on *REFORM*.

For control variables, *SHARE* refers to the investor firm *i*'s ownership in the investee firm *j*, including both direct holdings and indirect holdings through intermediate subsidiaries or other controlled entities, controlling for consolidation decisions driven by ownership levels. *SHARE50* is an indicator that equals one if *SHARE* exceeds 50%, and zero otherwise, capturing the nonlinear increase in consolidation likelihood when majority control is attained. *SIZE* is the investor firm's consolidated asset size, controlling for firm scale. *ROEGAP* and *LEVGAP* represent the differences in the return on equity and the debt-to-asset ratio between the investee firm and the investor firm, controlling for investor firms' incentives to understate liabilities and inflate earnings through consolidation accounting. For investor firms, we extract these financial ratios from parent firm-level statements to better capture their pre-consolidation incentives.

Other controls include *MERGE* (indicator for merger and acquisition activities), *LNMTB* (the natural logarithm of the market-to-book ratio), *AGE* (years since listing), *TOPHOLD* (the largest shareholder's ownership), *MONITOR* (monitoring power of the second to tenth largest shareholders over the largest shareholder), *INST* (institutional ownership), *BOARDSIZE* (logarithm of the number of directors), *INDEP* (proportion of independent directors), *DUAL*

[16] Consistent with terminology used in central government policy documents on mixed-ownership reform, we define non-state shareholders as those ultimately controlled by private capital, foreign capital, and Hong Kong-Macau-Taiwan capital.

(dual CEO-chair indicator), *EXEHOLD* (managerial ownership), and *BIG4* (indicator for Big-4 auditor), following prior research (Chiu, Teoh, and Tian 2013; Fan and Wong 2002; Farber 2005; Jiang, Ma, and Wang 2020). All control variables are measured in year *t*. Detailed variable definitions are presented in Appendix A.

Ⅳ. SAMPLE DESCRIPTION

Sample and Data

We use the listed A-share SOEs and their investees in China between 2007 and 2019 as the research sample. We define SOEs as firms whose ultimate controller is a government agency. According to the Chinese Company Law, the ultimate controller is determined based on the principle of de facto control. The sample includes both central and local SOEs and begins in 2007, when the China Securities Regulatory Commission (CSRC) required listed firms to disclose investee firms' financial information under the new accounting standards converging with IFRS.[17] The sample ends in 2019, covering a symmetric six-year window before and after the mixed-ownership reform. Ending the sample in 2019 also avoids potential Covid-19-related shocks to accounting behavior (Buchetti, Parbonetti, and Pugliese 2022). We collect investee firms' financial information from the notes of Interest in Other Entities and Management's Discussion and Analysis (MD&A) in corporate annual reports. We obtain ultimate controller information from the WIND database. Other variables are extracted from the China Stock Market and Accounting Research (CSMAR) database.

Table 1 presents the sample screening process. The initial sample includes all listed SOEs in China and their investees. We exclude wholly-owned investees, sub-investees where the investor firm holds more indirect than direct shares, investees acquired through mergers and acquisitions (M&As) under common control, investor firms in the financial sector, and

[17] See "Information Disclosure and Preparation Rules for Public Firms No. 15: General Provisions for Financial Reports," issued by CSRC in 2007.

observations with missing control variables. The final sample consists of 1,065 investor firms, 14,559 investee firms, and 51,188 investor firm- investee firm- year observations.

Descriptive Statistics

Table 2 reports the descriptive statistics for the variables in Model (1). The treatment group consists of 113 SOEs that completed the mixed-ownership reform during the sample period, while the control group includes 952 SOEs that did not. *SHARE* and *SHARE50* vary around the reform, highlighting the necessity to control them in the regression analysis. Both *ROEGAP* and *LEVGAP* have negative mean values, indicating that on average investor SOEs have higher ROE and higher leverage than their investee firms. Board size (*BOARDSIZE*) increases for treated SOEs following the reform, reflecting the appointment of new directors by incoming non-state blockholders. Managerial ownership (*EXEHOLDING*) remains minimal in both groups, averaging 0.2% before the reform and 0.3% afterward for treated SOEs, compared with 0.1% for the control group.

Ⅴ. MIXED-OWNERSHIP REFORM AND SOES' CONSOLIDATION DECISIONS

Main Regression

Table 3 presents our main results. In Column (1), we estimate Equation (1) controlling for *SHARE*, *SIZE*, *ROEGAP*, *LEVGAP*, and investor firm and year dummies. The coefficient on *REFORM* is significantly negative at the 5% level (*coeff.*=-0.024, *t*=-2.67), implying that SOEs become less likely to consolidate non-wholly-owned investees after the reduction in state ownership brought about by the mixed-ownership reform. This decline in consolidation tendency is obtained while holding constant the investor firm's ownership in the investee and the profitability and leverage differences between the two firms, which are commonly cited factors that may influence firms' consolidation decisions. Column (2) adds firm fundamentals and corporate governance controls, and the *REFORM* coefficient remains significant with minimal changes in magnitude (*coeff.*=-0.025, *t*=-2.91).

For control variables, *SHARE* and *SHARE50* show significantly positive coefficients, suggesting that ownership is an important factor affecting consolidation decisions (Beck, Behn, Lionzo, and Rossignoli 2017). *ROEGAP* is positive and *LEVGAP* is negative, consistent with prior findings that firms tend to avoid consolidating loss-making or highly leveraged investees in order to window-dress their consolidated statements (Benston and Hartgraves 2002; Heian and Thies 1989; Mohr 1988).

Cross-Sectional Analyses

Discretion in Applying the Consolidation Standards

We argue that the decline in state ownership after the mixed-ownership reform weakens SOEs' incentives to use accounting discretion to consolidate investees and appear larger. If so, this effect should be stronger when accounting standards afford greater discretion. We measure such discretion in two ways. First, according to accounting standards, firms have limited discretion to avoid consolidation when ownership exceeds 50% (absolute control) and to pursue consolidation when the ownership falls below 20% (lack of significant influence). Hence, discretion is greater when ownership ranges between 20% and 50%. We define *SHARE20-50* as one if ownership lies in this range and zero otherwise, and interact it with *REFORM*. Table 4 Column (1) reports a significant negative coefficient on this interaction, indicating that the mixed-ownership reform leads to a greater reduction in SOEs' consolidation tendency when available discretion is greater. Graph 1 further illustrates this pattern. For holdings above 50%, the consolidation rate is close to 100% both before and after the reform. For holdings below 50%, particularly within the 20% to 50% range, the consolidation rate is significantly higher pre-reform than post-reform, consistent with our regression results.

Second, we use firms' legal forms to proxy for discretion in consolidation. China's Company Law mandates the "one share, one vote" rule for joint stock companies, requiring voting rights to align with capital contributions. In contrast, limited liability companies and

partnerships are not subject to this rule, allowing greater discretion in consolidation. Accordingly, we define a variable *LLC&P*, which equals one if the investee is a limited liability company or partnership, and zero if it is a joint stock company. We then interact *REFORM* with *LLC&P*. A significant negative coefficient on the interaction would suggest that the reform leads to a greater reduction in SOEs' consolidation tendency in cases where greater discretion is involved. The results presented in Column (2) of Table 4 are consistent with our expectation.

The Size-Expansion Effect of Consolidation

We examine whether the reform's impact on SOEs' consolidation tendency is more pronounced when the investee firm is large relative to the investor firm and consolidating it would significantly increase current-year consolidated total assets. *SIZEGAP* is the natural logarithm of the investee firm's total assets over the investor firm's total assets on the parent-firm statements. In Table 4 Column (3), the interaction between *REFORM* and *SIZEGAP* is significantly negative. This result indicates that SOEs' consolidation tendency is more sensitive to state ownership when consolidation would result in a larger increase in reported assets.

Chinese local governments often grant industry-specific preferential policies favoring larger firms (Zhang and Liu 2020), giving SOEs incentives to maintain or improve their local asset-size ranking. We therefore examine whether the reform's effect is stronger for SOEs that face pressure to preserve their size ranking. We construct an indicator variable, *SIZERANK*, which equals one if a firm's asset-size ranking within its local province and industry has declined over the past two years, and zero otherwise. Table 4 Column (4) presents the results: SOEs with *SIZERANK* =1 are more likely to consolidate, and the reform reduces the consolidation tendency more strongly for these SOEs.

The Pressure of Political Tasks

We investigate whether SOEs' consolidation decision is more sensitive to state ownership when they are assigned more political tasks. We identify such SOEs in two ways. First, the

SASAC classifies SOEs into three categories: public welfare SOEs, functional commercial SOEs, and competitive commercial SOEs.[18] Public welfare SOEs and functional commercial SOEs (collectively referred to as functional SOEs) are assigned more political tasks and may have more incentives to expand in size (Dong et al. 2021; Wu et al. 2012).[19] Table 4, Column (5) presents a significantly negative coefficient on the interaction between *REFORM* and *FUNCTION* (the functional SOE indicator), implying that functional SOEs experience a larger reduction in consolidation tendency following the reform than competitive commercial SOEs.

Second, we focus on SOEs in industries where the government actively promotes M&As. These industries, designated in each Five-Year Plan approved by the National People's Congress, typically include key sectors such as resource extraction, real estate, transportation, environmental protection, and culture. In these sectors, the government encourages SOEs to perform M&As to build dominant firms leading industry development. SOEs in these industries have strong size-expansion incentives, because smaller SOEs are more likely to be acquired by larger ones and their executives risk demotion after acquisition (Zhang and Liu 2020). We define a variable *M&A* indicating SOEs in these industries, and interact it with *REFORM*. Table 4, Column (6) shows a significantly negative coefficient on this interaction, suggesting that consolidation is more affected by state ownership in these key industries. Taken together, these findings are consistent with the idea that SOEs' consolidation decisions are related to size-expansion incentives rooted in political tasks.

Robustness Checks

Graph 2 presents the parallel trend test. The pre-reform coefficients are all statistically insignificant, supporting the parallel trends assumption. In contrast, three of the six post-reform

[18] Public welfare SOEs operate in sectors that deliver public goods and services and safeguard people's livelihoods. Functional commercial SOEs operate within crucial industries and key sectors related to national security and the lifeline of the national economy, while competitive commercial SOEs engage in fully competitive industries. For more details, please see "Guiding Opinions of the Central Committee of the Communist Party of China and the State Council on Deepening the Reform of State-owned Enterprises," State Council Gazette, No. 27, 2015.

[19] Indeed, the average total assets of functional SOEs in our sample amount to 46.51 billion, compared to the average of 12.31 billion for competitive commercial SOEs.

coefficients are significantly negative, suggesting a significant impact of the mixed-ownership reform on SOEs' consolidation decisions. Untabulated results further show that our results remain robust to various additional checks, including a stacked DiD analysis, matched samples (via propensity score matching and entropy balancing), controls for non-equity-based power (board appointments, ownership dispersion, and shareholder activism in shareholder meetings), and the exclusion of firms with excessive investee firms.

We also redefine *REFORM* as a continuous measure of the reduction in state ownership after the reform and obtain consistent results. Moreover, we test whether increases in non-state institutional and non-institutional ownership (individuals and private or foreign corporate entities) after the reform affect SOEs' consolidation tendency, but find insignificant results. These results suggest that the lower consolidation tendency more likely reflects weaker empire-building incentives from lower state ownership, rather than governance effects from new non-state blockholders. Our findings are also robust to alternative clustering choices, including by investor firm, investee firm, investor-year, and investee-year. Finally, extending the sample to include both SOEs and non-SOEs shows that SOEs show a stronger consolidation tendency.

Ⅵ. ECONOMIC CONSEQUENCES OF SOES' CONSOLIDATION DECISIONS

Although we argue that SOEs' consolidation tendency stems from size-related government subsidies and performance evaluations, it is important to note that consolidation accounting only increases *book* assets, rather than *real* assets, compared to the equity method. As a supplementary analysis, we therefore investigate whether consolidation actually delivers real benefits to SOEs and whether such benefits decline following the mixed-ownership reform.

Government Subsidies

We estimate the following equation using investor firm-year level data to examine whether SOEs' exercise of consolidation accounting affects their government subsidies, and whether this effect diminishes after the reform.

$$\begin{aligned}
&\Delta SUBSIDY_{i,t} = \beta_0 + \beta_1 REFORM_{i,t} + \beta_2 \Delta ASSET_CONSOLIDATE_{i,t} + \\
&\beta_3 REFORM_{i,t} \times \Delta ASSET_CONSOLIDATE_{i,t} + \beta_4 \Delta ASSET_ECONOMIC_{i,t} + \\
&\beta_5 REFORM_{i,t} \times \Delta ASSET_ECONOMIC_{i,t} + \beta_6 AGGASSET + \\
&\beta_7 REFORM_{i,t} \times AGGASSET_{i,t} + \beta_8 \Delta ASSET_CONSOLIDATE_{i,t} * AGGASSET_{i,t} + \\
&\beta_9 REFORM_{i,t} \times \Delta ASSET_CONSOLIDATE_{i,t} \times AGGASSET_{i,t} + \sum Controls + \\
&\sum Investor\ Firm\ Fixed\ Effects + \sum Year\ Fixed\ Effects + \varepsilon_{i,t}
\end{aligned} \tag{2}$$

To mitigate endogeneity concerns, we employ a change model. *ΔSUBSIDY* is the change in government subsidies from the previous year, scaled by beginning assets multiplied by 100. *ASSET_CONSOLIDATE* is the asset increase resulting from consolidation relative to the equity method, computed as the sum of total assets of consolidated investees minus their pro forma equity-method amount (investee equity × investor shareholding). *ΔASSET_CONSOLIDATE* denotes its year-over-year change, scaled by beginning assets. *ΔASSET_ECONOMIC* represents asset growth from real economic activities, computed as the percentage change in consolidated assets minus *ΔASSET_CONSOLIDATE*. A significantly positive coefficient on *ΔASSET_CONSOLIDATE* would suggest that asset expansion via consolidation accounting results in real government subsidies before the mixed-ownership reform, while a significantly negative coefficient on its interaction with *REFORM* would suggest that SOEs receive fewer subsidies for such consolidation-driven size increases after the reform. *AGGASSET* measures aggressive consolidation, calculated as the difference between the total consolidated assets of investees with ownership below 50% that are nonetheless consolidated and their pro forma equity-method amount, scaled by consolidated assets. If the government can identify aggressive consolidation and adjust subsidy allocation accordingly, we expect a significantly negative coefficient on *AGGASSET* × *ΔASSET_CONSOLIDATE* and a significantly positive coefficient on its three-way interaction with *REFORM*.

Columns (1)-(2) of Table 5 present the results. In Column (1), the coefficients on *ΔASSET_CONSOLIDATE* and *ΔASSET_ECONOMIC* are both significantly positive, indicating that before the reform, government subsidies increase with SOEs' asset growth,

whether driven by real economic activities or consolidation accounting. More importantly, the interaction terms between *REFORM* and both asset growth measures are significantly negative, suggesting that government subsidies become less responsive to asset expansion following the reform. These findings are consistent with our argument that the government links subsidies less closely to firm size when state ownership is lower, making SOEs less inclined to expand asset size through consolidation accounting. Column (2) shows insignificant coefficients on *ΔASSET_CONSOLIDATE*×*AGGASSET* and its interaction with *REFORM*, suggesting that the sensitivity of government subsidies to firm size is not reduced for SOEs that perform aggressive consolidation. The result implies limited government ability to detect such practices.

Executive Compensation

We re-estimate Equation (2) using the change in executive compensation (*ΔCOMP*) as the dependent variable instead of *ΔSUBSIDY* to examine whether the benefit of SOEs' consolidation decisions in terms of executive compensation declines following the mixed-ownership reform. Specifically, *ΔCOMP* is the change in average executive compensation from year *t*-1 to year *t*+1 scaled by total assets at the beginning of the year multiplied by 10,000. We use year *t*+1 rather than year *t* because SOE executives' compensation comprises two parts: base salary and performance bonus. The performance bonus is paid in year *t*+1.[20]

Columns (3)-(4) of Table 5 report the results. Column (3) shows significantly positive coefficients on both *ΔASSET_CONSOLIDATE* and *ΔASSET_ECONOMIC*, indicating that before the reform, SOE executives' compensation is significantly associated with firm asset expansion, including that induced by consolidation accounting. The interaction terms between *REFORM* and the two variables are significantly negative, indicating that the declining state ownership after the reform weakens the link between executive compensation and firm size

[20] See "Interim Measures for Performance Evaluation of Central Enterprise Leaders" issued by SASAC since 2003. From 2003 to 2009, the performance bonus comprised 40% of the total compensation for central SOE executives. In 2012, this share was adjusted to 30%. Since 2016, no fixed ratios have been stipulated. Local SOEs adopt similar salary policy schemes.

expansion. Column (4) shows insignificant coefficients on *ΔASSET_CONSOLIDATE* × *AGGASSET* and its interaction with *REFORM*, suggesting that such discretion may not be explicitly recognized or addressed by the government.

Political Promotion

We re-estimate Equation (2) by replacing the dependent variable with *PROMOTION* to test whether the benefit of SOEs' consolidation accounting in terms of executives' political promotion diminishes after the mixed-ownership reform. The analysis is conducted using investor firm-executive-year level data. Specifically, *PROMOTION* is an indicator that equals one if the CEO or chairperson undergoes any of the following: (i) promotion to a higher political rank within the company, (ii) assumption of an executive position in the largest shareholder's entity, or (iii) departure from the company to take up the position of Governor or Party Secretary, and zero otherwise. Data on (i) and (ii) are obtained from the CSMAR database, and that on (iii) is collected from governmental public data. We slightly modify the definitions of *ΔASSET_ECONOMIC* and *ΔASSET_CONSOLIDATE* to measure changes over a three-year window (from year *t*-3 to year *t*), because the typical tenure for SOE executives is three years, and political promotion often occurs after at least one term of service.[21]

Columns (5)-(6) of Table 5 show that the coefficients on *ΔASSET_CONSOLIDATE* and *ΔASSET_ECONOMIC* are both significantly positive, suggesting that before the reform, executives in larger SOEs are more likely to be promoted to a higher position, even if the increase in firm size is driven by consolidation accounting. The interactions between *REFORM* and these two variables are significantly negative, indicating that the sensitivity of executive promotion to firm asset growth declines after the reduction in state ownership. The interaction of *ΔASSET_CONSOLIDATE* and *AGGASSET* has an insignificant coefficient, suggesting that the government cannot distinguish between SOEs that engage in aggressive consolidation and

[21] See "Interim Measures for Performance Evaluation of Central Enterprise Leaders" issued by SASAC since 2003.

those that do not. Taken together, these results indicate that aggressive consolidation accounting generates real benefits, especially when state ownership is higher.

Ⅶ. CONCLUSIONS

The de facto control consolidation model lowers the ownership threshold for consolidation and grants firms greater discretion than the previous ownership-based consolidation model. We examine whether SOEs with higher state ownership, and thus stronger empire-building incentives, are more likely than those with lower state ownership to use this discretion to consolidate additional investees and expand asset size. China's mixed-ownership reform, which introduces non-state strategic blockholders into SOEs and reduces state ownership, provides an ideal research setting. We find that SOEs become less likely to consolidate their non-wholly-owned investees following the reform. The decline is more pronounced when SOEs have greater discretion in determining the scope of consolidation, when consolidating the given investee results in a larger increase in reported asset size, and when SOEs undertake more political tasks for which a large firm size is advantageous. These cross-sectional results indicate that SOEs' lower consolidation tendency after the reform is associated with weakened empire-building incentives following the decrease in state ownership. Moreover, we find that SOEs' consolidation decisions generate real economic consequences. Prior to the reform, SOEs and their executives obtained government subsidies, compensation, and political promotion through consolidation, while the benefits from consolidation significantly declined afterwards. Even though our findings are obtained from the Chinese setting, the implications may be relevant to other settings characterized by strong empire-building incentives.

REFERENCES

Bai, C., D. D. Li, Z. Tao, and Y. Wang. 2000. A multitask theory of state enterprise reform. *Journal of Comparative Economics* 28 (4):716–738. https://doi.org/10.1006/jcec.2000.1681

Ball, R., A. Robin, and J. S. Wu. 2003. Incentives versus standards: Properties of accounting income in four East Asian countries. *Journal of Accounting and Economics* 36 (1–3):235–270. https://doi.org/10.1016/j.jacceco.2003.10.003

Bova, F., and L. Yang. 2018. State-owned enterprises, competition, and disclosure. *Contemporary Accounting Research* 35 (2):596–621. https://doi.org/10.1111/1911-3846.12412

Beck, A. K., B. K. Behn, A. Lionzo, and F. Rossignoli. 2017. Firm equity investment decisions and U.S. GAAP and IFRS consolidation control guidelines: An empirical analysis. *Journal of International Accounting Research* 16 (1):37–57. https://doi.org/10.2308/jiar-51657

Benis, M. 1979. The non-consolidated finance company subsidiary. *The Accounting Review* 54 (4):808–814.

Benston, G. J., and A. L. Hartgraves. 2002. Enron: What happened and what we can learn from it. *Journal of Accounting and Public Policy* 21 (2):105–127. https://doi.org/10.1016/S0278-4254(02)00042-X

Boubakri, N., J. Cosset, and O. Guedhami. 2009. From state to private ownership: Issues from strategic industries. *Journal of Banking & Finance* 33 (2):367–379. https://doi.org/10.1016/j.jbankfin.2008.08.012

Bradshaw, M., G. Liao, and M. Ma. 2019. Agency costs and tax planning when the government is a major shareholder. *Journal of Accounting and Economics* 67 (2):255–277. https://doi.org/10.1016/j.jacceco.2018.10.002

Buchetti, B., A. Parbonetti, and A. Pugliese. 2022. Covid-19, corporate survival and public policy: The role of accounting information and regulation in the wake of a systemic crisis. *Journal of Accounting and Public Policy* 41 (1):106919. https://doi.org/10.1016/j.jaccpubpol.2021.106919

Cai, C. X., D. Hillier, and J. Wang. 2016. The cost of multiple large shareholders. *Financial Management* 45 (2):401–430. https://doi.org/https://doi.org/10.1111/fima.12090

Cao, X., M. Lemmon, X. Pan, M. Qian, and G. Tian. 2019. Political promotion, CEO incentives, and the relationship between pay and performance. *Management Science* 65 (7):2947–2965. https://doi.org/10.1287/mnsc.2017.2966

Chiu, P., S. H. Teoh, and F. Tian. 2013. Board interlocks and earnings management contagion. *The Accounting Review* 88 (3):915–944. https://doi.org/10.2308/accr-50369

Christensen, H. B., E. Lee, M. Walker, and C. Zeng. 2015. Incentives or standards: What determines accounting quality changes around IFRS adoption? *European Accounting Review* 24 (1):31–61. https://doi.org/10.1080/09638180.2015.1009144

Deng, Y., R. Morck, J. Wu, and B. Yeung. 2015. China's pseudo-monetary policy. *Review of Finance* 19 (1):55–93. https://doi.org/10.1093/rof/rfu026

Dlugosz, J., R. Fahlenbrach, P. Gompers, and A. Metrick. 2006. Large blocks of stock: Prevalence, size, and measurement. *Journal of Corporate Finance* 12 (3):594–618. https://doi.org/10.1016/j.jcorpfin.2005.04.002

Dong, Y., Q. Hou, and C. Ni. 2021. Implicit government guarantees and credit ratings. *Journal of Corporate Finance* 69:102046. https://doi.org/10.1016/j.jcorpfin.2021.102046

Du, F., G. Tang, and S. M. Young. 2012. Influence activities and favoritism in subjective performance evaluation: Evidence from Chinese state-owned enterprises. *The*

Accounting Review 87 (5):1555–1588. https://doi.org/10.2308/accr-50196
Ewert, R., and A. Wagenhofer. 2005. Economic effects of tightening accounting standards to restrict earnings management. *The Accounting Review* 80 (4):1101–1124. https://doi.org/10.2308/accr.2005.80.4.1101
Fan, J. P. H., and T. J. Wong. 2002. Corporate ownership structure and the informativeness of accounting earnings in East Asia. *Journal of Accounting and Economics* 33 (3):401–425. https://doi.org/https://doi.org/10.1016/S0165-4101(02)00047-2
Farber, D. B. 2005. Restoring trust after fraud: Does corporate governance matter? *The Accounting Review* 80 (2):539–561. https://doi.org/10.2308/accr.2005.80.2.539
Feng, M., J. D. Gramlich, and S. Gupta. 2009. Special purpose vehicles: Empirical evidence on determinants and earnings management. *The Accounting Review* 84 (6):1833–1876. https://doi.org/10.2308/accr.2009.84.6.1833
Financial Accounting Standards Board (FASB). 2003. *FIN 46R Consolidation of Variable Interest Entities*. Norwalk, CT: FASB.
Financial Accounting Standards Board (FASB). 2009. *ASU 2009-17 Improvements to Financial Reporting by Enterprises involved with Variable Interest Entities*. Norwalk, CT: FASB.
Gao, H., J. Luo, and T. Tang. 2015. Effects of managerial labor market on executive compensation: Evidence from job-hopping. *Journal of Accounting and Economics* 59 (2–3):203–220. https://doi.org/10.1016/j.jacceco.2015.02.001
Heian, J. B., and J. B. Thies. 1989. Consolidation of finance subsidiaries: $230 billion in off-balance-sheet financing comes home to roost. *Accounting Horizons* 3 (1):1–9.
Hsu, A. W., and H. Pourjalali. 2015. The impact of IAS No. 27 on the market's ability to anticipate future earnings. *Contemporary Accounting Research* 32 (2):789–813. https://doi.org/10.1111/1911-3846.12088
Hsu, A. W., H. Pourjalali, and J. Ronen. 2023. Does consolidation of variable interest entities improve the pricing of financial reporting in bank holding companies? Evidence from FAS 166/167. *Journal of Accounting, Auditing and Finance* 38 (3):510–541. https://doi.org/10.1177/0148558X20987372
Hsu, A. W., R. Duh, and K. Cheng. 2012. Does the control-based approach to consolidated statements better reflect market value than the ownership-based approach? *International Journal of Accounting* 47 (2):198–225. https://doi.org/10.1016/j.intacc.2012.03.003
Hung, M., T. J. Wong, and T. Zhang. 2012. Political considerations in the decision of Chinese SOEs to list in Hong Kong. *Journal of Accounting & Economics* 53 (1–2):435–449. https://doi.org/10.1016/j.jacceco.2011.10.001
International Accounting Standards Board (IASB). 2011. *IFRS 10 Consolidated Financial Statements*. London, U.K.: IASB.
International Accounting Standards Committee (IASC). 1976. *IAS 3 Consolidated Financial Statements*. London, U.K.: IASC.
International Accounting Standards Committee (IASC). 1989. *IAS 27 Consolidated Financial Statements and Accounting for Investments in Subsidiaries*. London, U.K.: IASC.
International Accounting Standards Committee (IASC). 1998. *SIC-12 Consolidation - Special Purpose Entities*. London, U.K.: IASC.
Jiang, F., Y. Ma, and X. Wang. 2020. Multiple blockholders and earnings management. *Journal of Corporate Finance* 64:101689. https://doi.org/10.1016/j.jcorpfin.2020.101689
Jiang, H., Y. Hu, H. Zhang, and D. Zhou. 2018. Benefits of downward earnings management and political connection: Evidence from government subsidy and market pricing. *International Journal of Accounting* 53 (4):255–273. https://doi.org/10.1016/j.intacc.2018.11.001

Khurana, I. 1991. Security market effects associated with SFAS No. 94 concerning consolidation policy. *The Accounting Review* 66 (3):611–621.
Li, W., X. Yang, and X. Yin. 2022. Non-state shareholders entering of state-owned enterprises and equity mispricing: Evidence from China. *International Review of Financial Analysis* 84:102362. https://doi.org/10.1016/j.irfa.2022.102362
Liao, L., B. Liu, and H. Wang. 2014. China's secondary privatization: Perspectives from the split-share structure reform. *Journal of Financial Economics* 113 (3):500–518. https://doi.org/10.1016/j.jfineco.2014.05.007
Lin, K. J., J. Tan, L. Zhao, and K. Karim. 2015. In the name of charity: Political connections and strategic corporate social responsibility in a transition economy. *Journal of Corporate Finance* 32:327–346. https://doi.org/10.1016/j.jcorpfin.2014.10.007
Lu, J., and Z. Shi. 2018. Does improved disclosure lead to higher executive compensation? Evidence from the conversion to IFRS and the dual-class share system in China. *Journal of Corporate Finance* 48:244–260. https://doi.org/10.1016/j.jcorpfin.2017.11.004
Mohr, R. M. 1988. Unconsolidated finance subsidiaries: Characteristics and debt/equity effects. *Accounting Horizons* 2 (1):27–34.
Nobes, C. 2014. The development of national and transnational regulation on the scope of consolidation. *Accounting, Auditing & Accountability Journal* 27 (6):995–1025. https://doi.org/10.1108/AAAJ-03-2013-1287
Wu, L., Y. Wang, W. Luo, and P. Gillis. 2012. State ownership, tax status and size effect of effective tax rate in China. *Accounting and Business Research* 42 (2):97–114. https://doi.org/10.1080/00014788.2012.628208
Zhang, G. 2013. Accounting standards, cost of capital, resource allocation, and welfare in a large economy. *The Accounting Review* 88 (4):1459–1488. https://doi.org/10.2308/accr-50375
Zhang, S., and C. Liu. 2020. State ownership and the structuring of lease arrangements. *Journal of Corporate Finance* 62:101597. https://doi.org/10.1016/j.jcorpfin.2020.101597

Appendix A: Variable definitions

Variables	Definitions
$CONSOLIDATE_{i,j,t}$	An indicator that equals one if the investee firm *j* is included in the investor firm *i*'s scope of consolidation and is therefore disclosed as a subsidiary, and zero if it is disclosed as an associate or joint venture.
$REFORM_{i,t}$	An indicator that equals one if the investor firm *i* has completed the mixed-ownership reform, and zero otherwise. The completion is identified by two conditions that must be met simultaneously: (i) the entry of non-state blockholders holding over 5% of the firm's shares; and (ii) a reduction in state ownership.
$SHARE_{i,j,t}$	The proportion of investor firm *i*'s ownership in the investee firm *j*, including both direct holdings and indirect holdings through intermediate subsidiaries or other controlled entities.
$SHARE50_{i,j,t}$	An indicator that equals one if $SHARE_{i,j,t}$ is more than 50%, and zero otherwise.
$SIZE_{i,t}$	Firm size, measured by the natural logarithm of total assets on the investor firm *i*'s consolidated statements.
$ROEGAP_{i,j,t}$	The difference in return on equity (ROE) between investee firm *j* and investor firm *i*, measured by ROE of the investee firm *j* minus ROE calculated based on the parent-firm statements of the investor firm *i*.
$LEVGAP_{i,j,t}$	The difference in the debt-to-asset ratio between investee firm *j* and investor firm *i*, measured by the debt-to-asset ratio of the investee firm *j* minus the debt-to-asset ratio calculated based on the parent-firm statements of the investor firm *i*.
$MERGE_{i,t}$	An indicator that equals one if the investor firm *i* acquired or merged an investee firm in year *t*, and zero otherwise.
$LNMTB_{i,t}$	The natural logarithm of the market-to-book ratio of investor firm *i*.
$AGE_{i,t}$	The natural logarithm of one plus the years investor firm *i* has been public.
$TOPHOLD_{i,t}$	The percentage of shares held by the largest shareholder in firm *i*.
$MONITOR_{i,t}$	An indicator that equals one if the sum of the shareholdings of the second to tenth shareholders exceeds the shareholding of the largest shareholder, and zero otherwise.
$INST_{i,t}$	The percentage of shares held by institutional investors.
$BOARDSIZE_{i,t}$	The natural logarithm of the number of directors on the board.
$INDEP_{i,t}$	The proportion of independent directors on the board.
$DUAL_{i,t}$	An indicator that equals one if there exists a 'dual CEO', i.e., a person who is CEO and chairperson of the board, and zero otherwise.
$EXEHOLD_{i,t}$	The percentage of shares held by managers.
$BIG4_{i,t}$	An indicator that equals one if firm *i* is audited by a Big-4 audit firm, and zero otherwise.
$SHARE20\text{-}50_{i,j,t}$	An indicator that equals one if the investor firm *i* holds 20% to 50% shares in the investee firm *j*, and zero otherwise.
$LLC\&P_{i,j,t}$	An indicator that equals one if the investee firm *j* is a limited liability company or partnership, and zero if it is a joint stock company.
$SIZEGAP_{i,j,t}$	The natural logarithm of the investee firm *j*'s total assets minus the natural logarithm of the investor firm *i*'s total assets on the parent-firm statements.
$SIZERANK_{i.t}$	An indicator that equals one if the investor firm *i* experienced a decline in asset rank in its local province and industry over the past two years, and zero otherwise.
$M\&A_{i,t}$	An indicator that equals one if the investor firm *i* operates in an industry with intense government-directed M&A activities, and zero otherwise. Using CSRC industry classification (2012 edition), during the 11th Five-Year Plan period (2006-2010), these industries include B06, B08, C22, C25, C26, C30, C31, C32, C36, and K70. During the 12th Five-Year Plan period (2011-2015), these industries include B06, C30, C31, C32, and R87. During the 13th Five-Year Plan period (2016-2020), these industries include K70 and R87.
$FUNCTION_{i,t}$	An indicator that equals one if the investor firm *i* operates in a public welfare industry or a functional commercial industry, and zero if it operates in a competitive commercial industry. Using CSRC industry classification (2012 edition), Public welfare industries

	include A, C42, D, G60, N77, O79, P, and Q. Functional commercial industries include B06, B07, B08, B09, B10, C25, C30, C31, C32, C35, C37, E48, G53, G54, G55, G56, G57, I63, and R85. All other industries are competitive commercial industries.
$\Delta SUBSIDY_{i,t}$	The difference between the government subsidies received by the firm i in year t and those received in year t-1, divided by the total consolidated assets at the beginning of the year t multiplied by 10^2.
$\Delta ASSET\_CONSOLIDATE_{i,t}$	The change in *ASSET_CONSOLIDATE* scaled by total assets at the beginning of the year. *ASSET_CONSOLIDATE* represents the increase in assets resulting from consolidation compared to the equity method. In the *PROMOTION* regression, it is computed as the change over the past three years.
$\Delta ASSET\_ECONOMIC_{i,t}$	The percentage change in consolidated total assets minus *ΔASSET_CONSOLIDATE*. In the *PROMOTION* regression, it is computed as the change over the past three years.
$AGGASSET_{i,t}$	The difference between the total consolidated assets of investees with less than 50% ownership that are nonetheless consolidated, and the corresponding pro forma amount estimated under the equity method, scaled by the investor firm i's consolidated total assets.
$\Delta EMPLOYEE_{i,t}$	The percentage change in the number of employees.
$\Delta ROE_{i,t}$	The change in the return on equity.
$\Delta LEV_{i,t}$	The change in the debt-to-asset ratio.
$\Delta FIXASSET_{i,t}$	The change in the ratio of the fixed assets to total assets.
$\Delta RD_{i,t}$	The change in the ratio of R&D expenditure to total assets.
$\Delta FISREV_{i,t}$	The change in the fiscal revenue of the province where the firm i is located, scaled by the previous year's fiscal revenue.
$\Delta COMP_{i,t}$	The change in the average compensation for the executives and directors from year t-1 to year t+1 scaled by consolidated total assets at the end of year t-1 multiplied by 10^4.
$PROMOTION_{i,p,t}$	An indicator that equals one if the CEO or chairperson p undergoes any of the following: (i) promotion to a higher political rank within the company, (ii) assumption of an executive position in the largest shareholder's entity, or (iii) departure from the company to take up the position of Governor or Party Secretary in the province or city, and zero otherwise.
$\Delta ROE3_{i,t}$	The compound annual growth rate of ROE over the past three years.
$\Delta LEV3_{i,t}$	The compound annual growth rate of the debt-to-asset ratio over the past three years.
$EMPLOYEE_{i,t}$	The natural logarithm of the average number of employees over the past three years.
$TAX_{i,t}$	The ratio of average tax expense to average operating income over the past three years.
$POSITION_{i,p,t}$	An ordinal variable representing the administrative level of the board chairperson (or CEO) that equals zero if there is no administrative level, one for township and below level, two for county or district level, three for city level, four for provincial or ministerial level, and five for national level.
$EXEAGE_{i,p,t}$	The natural logarithm of the age of the board chairperson (or CEO).
$EDU_{i,p,t}$	An indicator that equals one if the board chairperson (or CEO) has a master's degree or higher, and zero otherwise.
$TENURE_{i,p,t}$	The natural logarithm of the number of years the board chairperson (or CEO) has been in office plus one.
$LASTYEAR_{i,p,t}$	An indicator that equals one if the board chairperson (or CEO) departs within the current year, and zero otherwise.

TABLE 1
Sample Selection

		Number of observations			
		Investor firm	Investor firm-year	Investee firm	Investor firm-investee firm-year
Initial sample: All listed SOEs in China and their investees		1,235	11,547	28,991	117,134
Minus:	Wholly-owned subsidiaries	52	976	11,114	51,112
	Sub-investee firms of which the investor firm holds more indirect shares than direct shares [a]	8	175	1,501	5,138
	Subsidiaries under common control [b]	4	243	555	4,075
	Investor firms within the financial industry	33	202	173	596
	Missing values for control variables (*ROEGAP*, *LEVGAP*, *INDEP*, and *DUAL*)	73	902	1,089	5,025
Final sample		1,065	9,049	14,559	51,188

Note: (a) is deleted to avoid the confounding effects of pyramid ownership structures on consolidation decisions.
(b) is deleted as (i) consolidation in such cases is typically determined by the ultimate controller rather than the investor firm, and (ii) these M&As are accounted for using the book value method (akin to the pooling of interests method) rather than the purchase method, which may further confound our results.

TABLE 2
Descriptive Statistics

	Treatment Group Before the Reform (*N*=3,606)			Treatment Group After the Reform (*N*=1,500)			Control Group (*N*=46,082)			Differences (3) - (1)		Differences (2) - (1)	
	(1)			(2)			(3)			(4)		(5)	
Variable	Mean	Median	S.D.	Mean	Median	S.D.	Mean	Median	S.D.	t-value	z-value	t-value	z-value
CONSOLIDATE	0.623	1.000	0.485	0.639	1.000	0.481	0.620	1.000	0.485	-0.37	-0.37	1.03	1.03
REFORM	0.000	0.000	0.000	1.000	1.000	0.000	0.000	0.000	0.000	0.00	0.00	0.00	71.45***
SHARE	0.551	0.510	0.217	0.556	0.510	0.211	0.558	0.510	0.220	1.82*	2.04**	0.82	1.83*
SHARE50	0.552	1.000	0.497	0.614	1.000	0.487	0.569	1.000	0.495	2.04**	2.04**	4.11***	4.10***
SIZE	22.474	22.377	1.204	22.927	22.969	1.055	23.048	22.859	1.500	22.40***	20.35***	12.68***	13.28***
ROEGAP	-0.056	-0.027	0.429	-0.049	-0.007	0.478	-0.034	-0.016	0.422	3.04***	4.60***	0.53	3.69***
LEVGAP	-0.126	-0.160	0.378	-0.177	-0.234	0.379	-0.119	-0.136	0.380	1.02	1.53	-4.38***	-4.43***
MERGE	0.447	0.000	0.497	0.739	1.000	0.440	0.423	0.000	0.494	-2.84***	-2.84***	19.75***	19.04***
LNMTB	0.528	0.458	0.403	0.484	0.377	0.451	0.476	0.374	0.427	-7.12***	-10.17***	-3.49***	-5.88***
AGE	2.801	2.833	0.270	3.049	3.091	0.219	2.779	2.833	0.358	-3.66***	0.39	31.43***	31.85***
TOPHOLD	0.357	0.355	0.152	0.272	0.254	0.108	0.414	0.416	0.150	21.79***	20.90***	-19.77***	-18.07***
MONITOR	0.226	0.000	0.418	0.749	1.000	0.434	0.169	0.000	0.374	-8.84***	-8.84***	40.19***	35.03***
INST	0.098	0.063	0.098	0.092	0.053	0.102	0.068	0.042	0.076	-22.38***	-15.65***	-1.90*	-2.46**
BOARDSIZE	2.231	2.197	0.169	2.249	2.197	0.216	2.233	2.197	0.211	0.58	0.79	3.18***	2.64***
INDEP	0.364	0.333	0.050	0.372	0.364	0.053	0.371	0.333	0.059	6.76***	5.47***	4.70***	6.31***
DUAL	0.038	0.000	0.192	0.070	0.000	0.255	0.100	0.000	0.300	12.20***	12.19***	4.86***	4.85***
EXEHOLDING	0.002	0.000	0.007	0.003	0.000	0.009	0.001	0.000	0.006	-10.02***	-7.26***	4.76***	12.15***
BIG4	0.079	0.000	0.269	0.049	0.000	0.217	0.141	0.000	0.348	10.47***	10.46***	-3.76***	-3.75***

Note: Variables are defined in Appendix A. *, **, *** denote significance at 10%, 5%, and 1% levels, respectively.

TABLE 3
SOEs' Consolidation Decisions Around the Mixed-Ownership Reform

	(1)	(2)
Dependent variable	*CONSOLIDATE*	*CONSOLIDATE*
REFORM	-0.024**	-0.025**
	(-2.67)	(-2.91)
SHARE	0.278***	0.278***
	(33.31)	(32.93)
SHARE50	0.704***	0.704***
	(67.79)	(67.80)
SIZE	0.005**	0.005
	(2.28)	(1.67)
ROEGAP	0.012***	0.012***
	(3.14)	(3.11)
LEVGAP	-0.020*	-0.020*
	(-1.86)	(-1.86)
MERGE		0.002
		(0.81)
LNMTB		-0.005
		(-1.02)
AGE		0.086***
		(4.25)
TOPHOLD		-0.074***
		(-3.97)
MONITOR		-0.002
		(-0.80)
INST		0.073**
		(2.45)
BOARDSIZE		-0.015
		(-1.37)
INDEP		-0.029
		(-0.86)
DUAL		-0.002
		(-0.68)
EXEHOLDING		-0.214
		(-0.97)
BIG4		-0.012
		(-1.22)
Constant	-0.051	-0.214**
	(-1.02)	(-2.84)
Investor firm fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Observations	51,188	51,188
R-squared	0.781	0.781

Notes: Variables are defined in Appendix A. The equations are estimated using OLS. Robust t-statistics with standard errors clustered by year are presented in the brackets. *, **, *** denote significance at 10%, 5%, and 1% levels, respectively.

TABLE 4
Cross-Sectional Analysis

Dependent variable	(1) *CONSOLIDATE*	(2) *CONSOLIDATE*	(3) *CONSOLIDATE*	(4) *CONSOLIDATE*	(5) *CONSOLIDATE*	(6) *CONSOLIDATE*
REFORM	-0.006	-0.020**	-0.068***	-0.018*	-0.008	-0.023**
	(-0.65)	(-2.50)	(-5.72)	(-1.95)	(-0.90)	(-2.83)
SHARE20-50	0.045**					
	(2.72)					
REFORM × SHARE20-50	-0.055***					
	(-5.03)					
LLC&P		0.013***				
		(3.21)				
REFORM × LLC&P		-0.028***				
		(-4.06)				
SIZEGAP			0.012***			
			(8.24)			
REFORM × SIZEGAP			-0.013***			
			(-5.70)			
SIZERANK				0.005*		
				(1.93)		
REFORM × SIZERANK				-0.030***		
				(-4.63)		
FUNCTION					0.024***	
					(4.01)	
REFORM × FUNCTION					-0.064***	
					(-3.58)	
M&A						0.012**
						(2.22)
REFORM × M&A						-0.028**
						(-2.36)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Investor firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	51,188	51,188	51,188	51,188	51,188	51,188
R-squared	0.781	0.781	0.783	0.781	0.781	0.781

Note: Variables are defined in Appendix A. The equations are estimated using OLS. The coefficients on control variables and intercepts are omitted. Robust t-statistics with standard errors clustered by year are presented in the brackets. *, **, *** denote significance at 10%, 5%, and 1% levels, respectively.

TABLE 5
Economic Consequences of SOEs' Consolidation Decisions Around the Reform

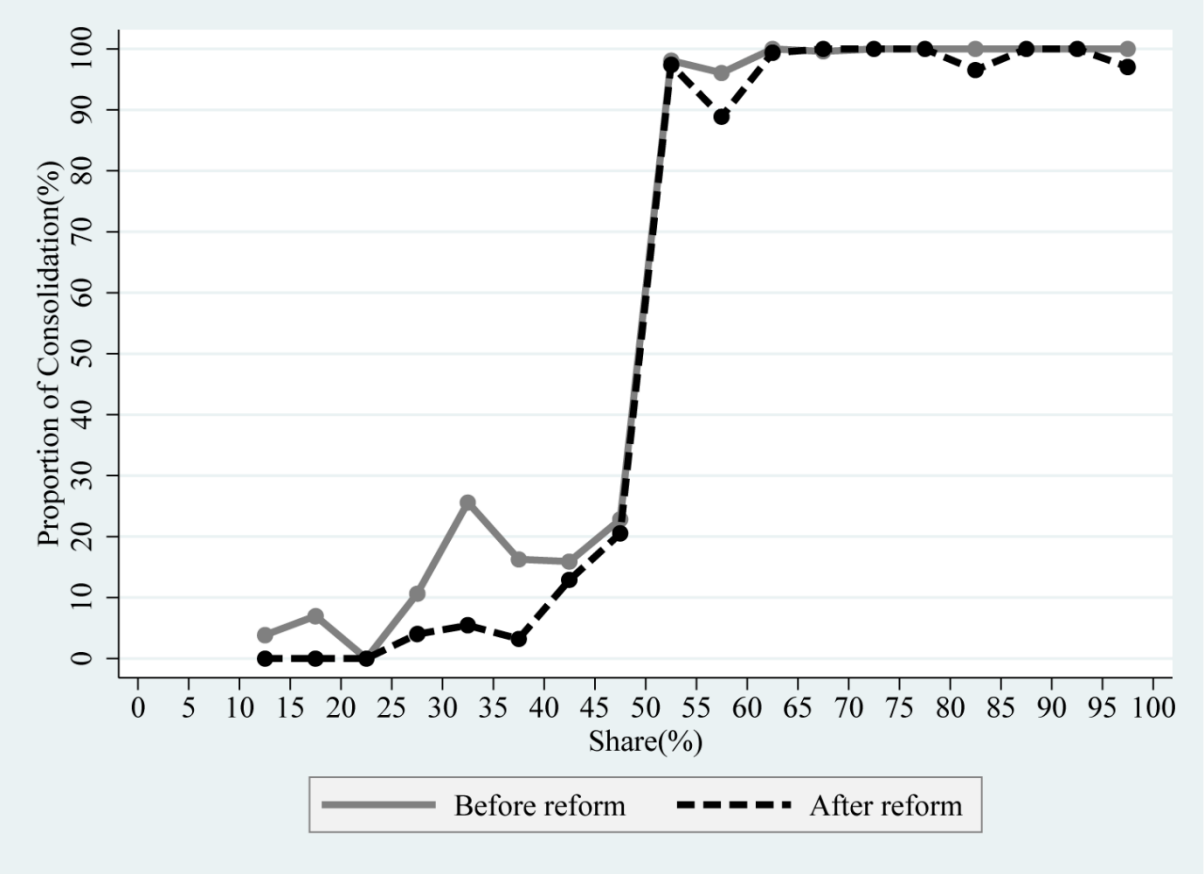
	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	*ΔSUBSIDY*	*ΔSUBSIDY*	*ΔCOMP*	*ΔCOMP*	*PROMOTION*	*PROMOTION*
REFORM	-0.015	-0.006	0.100**	0.112***	0.008	0.004
	(-0.21)	(-0.09)	(2.74)	(3.14)	(0.73)	(0.35)
ΔASSET_CONSOLIDATE	0.014***	0.014***	0.019**	0.019**	0.006*	0.006*
	(4.03)	(4.03)	(3.06)	(3.06)	(1.98)	(2.01)
ΔASSET_CONSOLIDATE ×	-0.068*	-0.060*	-0.060**	-0.055*	-0.020*	-0.019*
REFORM	(-1.84)	(-1.82)	(-2.40)	(-1.94)	(-2.16)	(-1.83)
ΔASSET_ECONOMIC	0.014***	0.014***	0.019***	0.019***	0.006**	0.006**
	(4.21)	(4.23)	(3.17)	(3.18)	(2.27)	(2.32)
ΔASSET_ECONOMIC ×	-0.018**	-0.016**	-0.021**	-0.020**	-0.020**	-0.020**
REFORM	(-2.81)	(-2.86)	(-2.69)	(-2.51)	(-2.60)	(-2.32)
AGGASSET		-0.177		-0.209		-0.071
		(-0.53)		(-1.60)		(-1.30)
REFORM × *AGGASSET*		-0.784		-1.354		0.411
		(-0.69)		(-1.56)		(1.42)
ΔASSET_CONSOLIDATE ×		-0.000		-0.000		0.011
AGGASSET		(-0.10)		(-0.18)		(1.15)
ΔASSET_CONSOLIDATE ×		-0.395		0.041		-0.107
REFORM × *AGGASSET*		(-0.45)		(0.11)		(-1.16)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Investor firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	7,064	7,064	7,064	7,064	10,083	10,083
R-squared	0.124	0.124	0.312	0.313	0.096	0.097

Note: Columns (1)-(2) report how SOEs' consolidation decisions around the reform affect government subsidies, based on investor firm-year level data. Control variables are introduced following prior research (Jiang, Hu, Zhang, and Zhou 2018; Lin, Tan, Zhao, and Karim 2015; Zhang and Liu 2020), including *SIZE*, *ΔEMPLOYEE*, *ΔROE*, *ΔLEV*, *ΔFIXASSET*, *ΔRD*, *ΔFISREV*, *LNMTB*, *TOPHOLD*, and *DUAL*.

Columns (3)-(4) report how SOEs' consolidation decisions around the reform affect executive compensation, based on investor firm-year level data. Control variables are based on prior research (Gao, Luo, and Tang 2015; Lu and Shi 2018), including *SIZE*, *ΔROE*, *ΔLEV*, *LNMTB*, *EXEHOLDING*, *DUAL*, *TOPHOLD*, *INST*, *BOARDSIZE*, and *INDEP*.

Columns (5)-(6) report how SOEs' consolidation decisions around the reform affect executive promotion, based on investor firm-executive-year level data. Control variables are introduced following Bradshaw, Liao, and Ma (2019) and Cao, Lemmon, Pan, Qian, and Tian (2019), including *SIZE*, *ΔROE3*, *ΔLEV3*, *EMPLOYEE*, *TAX*, *POSITION*, *EXEAGE*, *EDU*, *TENURE*, and *LASTYEAR*.

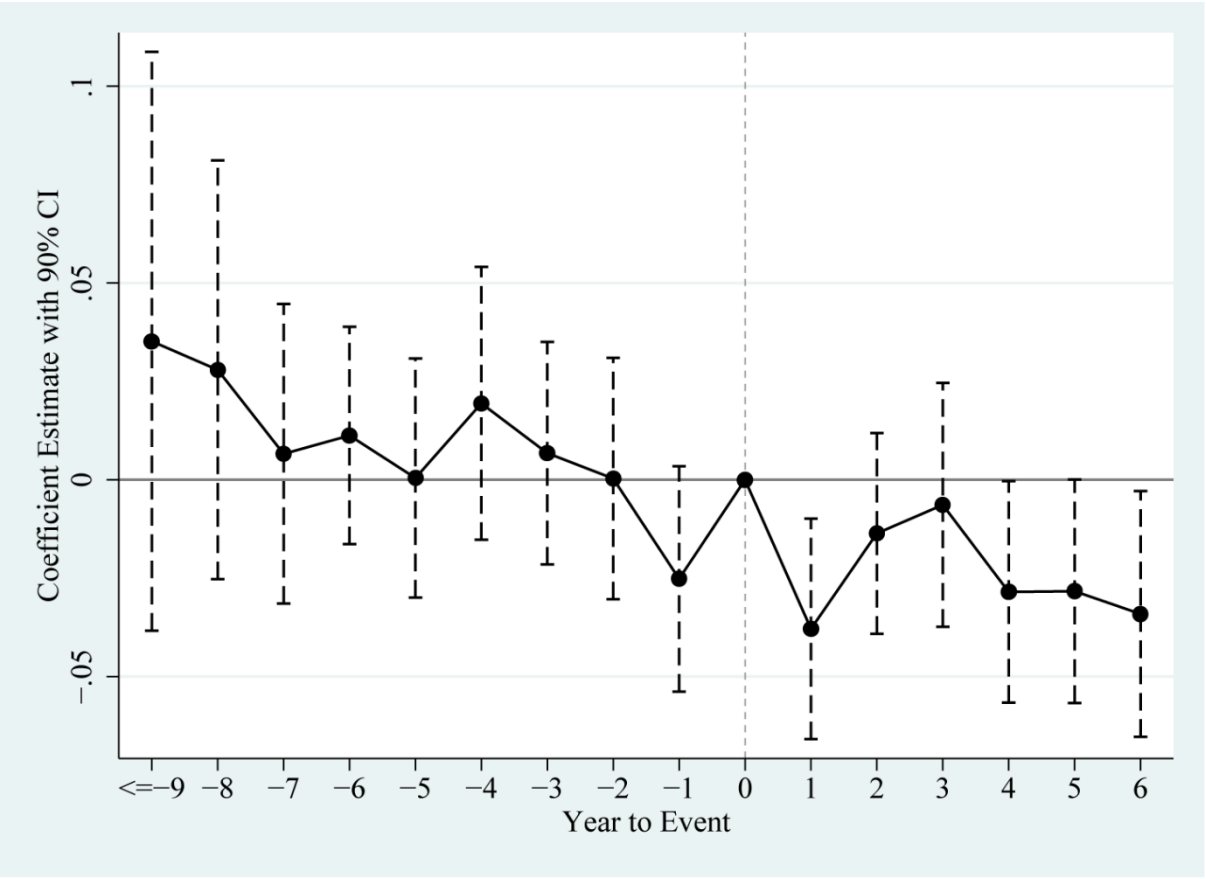
All variables are defined in Appendix A. The equations are estimated using OLS. The coefficients on control variables and intercepts are omitted. Robust t-statistics with standard errors clustered by year are presented in the brackets. *, **, *** denote significance at 10%, 5%, and 1% levels, respectively.



GRAPH 1
SOEs' Consolidation Rates Across Shareholding Levels Before and After the Mixed-Ownership Reform

[Alt-Text] Two lines show consolidation rates before and after the reform: below 50% ownership the after-reform rate is lower; over 50%, both converge near 100%.

Note: Graph 1 shows how the proportion of consolidated investees varies with investor firms' ownership stakes in investee firms for treatment SOEs before and after the mixed-ownership reform.



GRAPH 2
Parallel Trend Test

[Alt-Text] The scatter plot shows values clustered near zero before the reform, with three values and their 90% confidence intervals below zero after the reform.

Note: Graph 2 plots the coefficient estimates γ_k and the 90% confidence intervals from the equation below:

$$CONSOLIDATE_{i,j,t} = \alpha_0 + \sum_{k=-9}^{+6} \gamma_k D_{i,t}^k + \sum Controls + \sum Investor\ Firm\ Fixed\ Effects + \sum Year\ Fixed\ Effects + \varepsilon$$

The estimates illustrate how SOEs' consolidation decisions differ between treatment and control observations, both before and after the mixed-ownership reform. $D^k_{i,t}$ is a dummy variable that equals one in event year k if the investor firm i is affected by the mixed-ownership reform and zero otherwise. We collapse all years with $k \leq -9$ into one single dummy and use the reform year ($k = 0$) as the reference year. The estimated values of γ_k provide a graphical check of the parallel trend assumption behind our DiD approach. The circular points represent the regression coefficients γ_k and the long-dashed lines represent the 90% confidence intervals.